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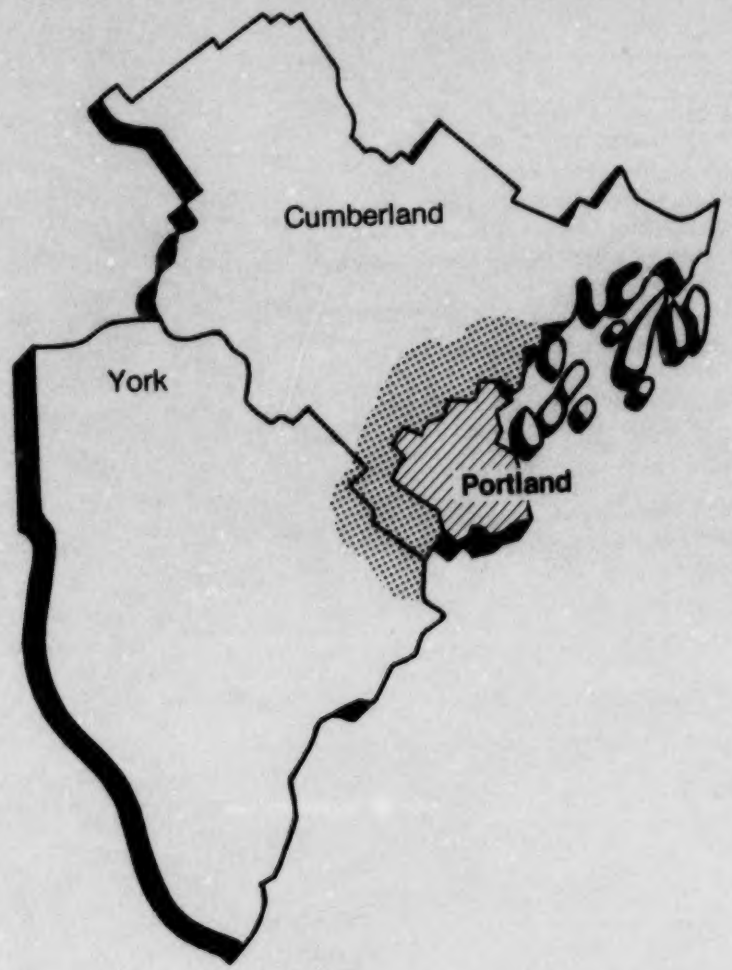
Area Wage Survey

Portland, Maine, Metropolitan Area December 1981

U.S. Department of Labor
Bureau of Labor Statistics

Bulletin 3010-64



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Preface

This bulletin provides results of a December 1981 survey of occupational earnings and supplementary wage benefits in the Portland, Me., Standard Metropolitan Statistical Area. The survey was made as part of the Bureau of Labor Statistics' annual area wage survey program. It was conducted by the Bureau's regional office in Boston, Mass., under the general direction of Gordon E. Bowen, Assistant Regional Commissioner for Operations. The survey could not have been accomplished without the cooperation of the many firms whose wage and salary data provided the basis for the statistical information in this bulletin. The Bureau wishes to express sincere appreciation for the cooperation received.

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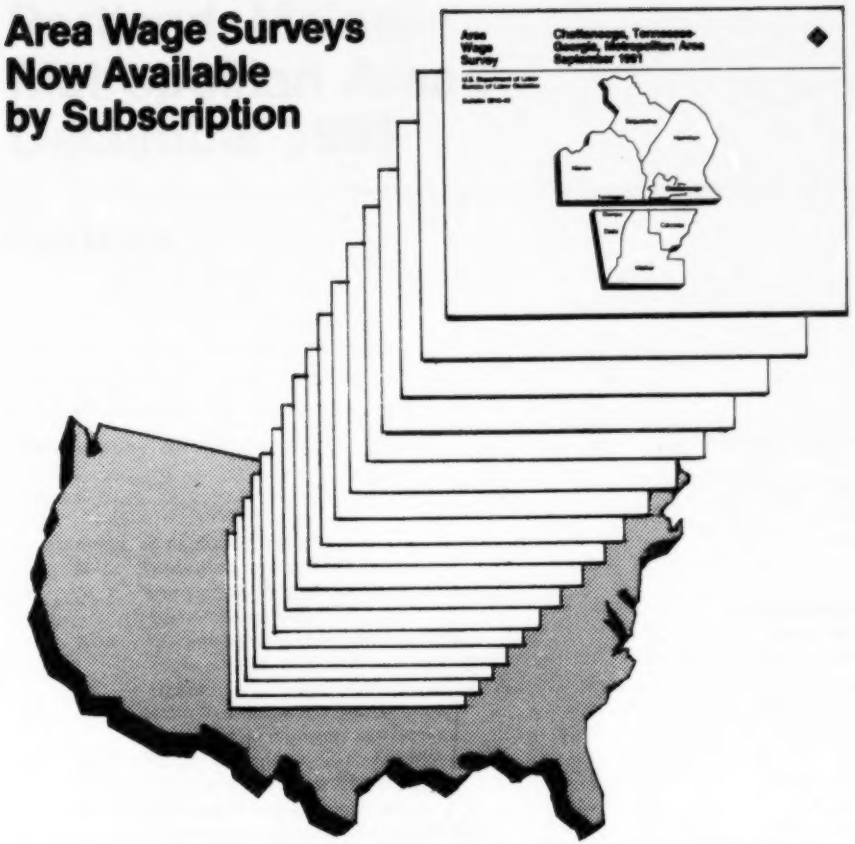

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Area Wage Survey

Portland, Maine, Metropolitan Area December 1981

U.S. Department of Labor
Raymond J. Donovan, Secretary

Bureau of Labor Statistics
Janet L. Norwood,
Commissioner

February 1982

Bulletin 3010-64

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Introduction

This area is 1 of 71 in which the U.S. Department of Labor's Bureau of Labor Statistics conducts surveys of occupational earnings and related benefits. (See list of areas on inside back cover.) In each area, earnings data for selected occupations (A-series tables) are collected annually. Information on establishment practices and supplementary wage benefits (B-series tables) is obtained every third year.

Each year after all individual area wage surveys have been completed, two summary reports are issued. The first brings together data for each metropolitan area surveyed; the second presents national and regional estimates, projected from individual metropolitan area data, for all Standard Metropolitan Statistical Areas in the United States, excluding Alaska and Hawaii.

A major consideration in the area wage survey program is the need to describe the level and movement of wages in a variety of labor markets, through the analysis of (1) the level and distribution of wages by occupation, and (2) the movement of wages by occupational category and skill level. The program develops information that may be used for many purposes, including wage and salary administration, collective bargaining, and assistance in determining plant location. Survey results also are used by the U.S. Department of Labor to make wage determinations under the Service Contract Act of 1965.

A-series tables

Tables A-1 through A-6 provide estimates of straight-time weekly or hourly earnings for workers in occupations common to a variety of manufacturing and nonmanufacturing industries. Where possible, occupations with related duties (e.g. accounting clerks and payroll clerks) are clustered to facilitate comparison. The occupations are defined in appendix B. For the 31 largest survey areas, tables A-12 through A-17 provide similar data for establishments employing 500 workers or more.

Beginning in 1981, multilevel jobs are designated numerically instead of alphabetically. A job conversion list is provided in appendix C.

Table A-7 provides indexes and percent changes in average hourly earnings for office clerical workers, electronic data processing workers, industrial nurses, skilled maintenance trades workers, and unskilled plant workers. Where possible, data are presented for all industries and for manufacturing and nonmanufacturing separately. Data are not presented for skilled maintenance workers in nonmanufacturing because the number of workers employed in this occupational group in nonmanufacturing is too small to warrant separate presentation. This table provides a measure of wage trends after elimination of changes in average earnings caused by employment shifts among establishments as well as turnover of establishments included in survey samples. For further details, see appendix A.

Tables A-8 through A-11 provide measures of pay relationships in establishments. These measures may differ considerably from the pay relationships of overall area averages published in tables A-1 through A-6. See appendix A for details.

B-series tables

The B-series tables present information on minimum entrance salaries for inexperienced typists and clerks; late-shift pay provisions and practices for production and related workers in manufacturing; and data separately for production and related workers and office workers on scheduled weekly hours and days of first-shift workers; paid holidays; paid vacations; health, insurance, and pension plan provisions; and health plan participation.

Appendixes

Appendix A describes the methods and concepts used in the area wage survey program. It provides information on the scope of the area survey, the area's industrial composition in manufacturing, and labor-management agreement coverage.

Appendix B provides job descriptions used by Bureau field representatives to classify workers by occupation.

Appendix C is an alphabetic to numeric conversion list for all multilevel jobs in the survey.

Table A-1. Weekly earnings of office workers in Portland, Me., December 1981

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[1]			Number of workers receiving straight-time weekly earnings (in dollars) of —																					
			Mean[2]	Median[2]	Middle range[2]	120 and under 130	130 – 140	140 – 150	150 – 160	160 – 170	170 – 180	180 – 190	190 – 200	200 – 210	210 – 230	230 – 250	250 – 270	270 – 290	290 – 310	310 – 330	330 – 350	350 – 370	370 – 390	390 – 410	410 – 430	430 – 450
Secretaries	212	39.0	246.50	236.50	203.50– 282.50	–	–	–	–	–	17	15	7	19	39	27	18	29	20	11	5	2	–	4	3	–
Manufacturing	65	39.5	274.50	286.00	247.50– 304.50	–	–	–	–	–	3	2	–	3	4	5	6	14	14	9	4	1	–	–	–	–
Nonmanufacturing	147	38.5	234.00	220.00	200.00– 258.00	–	–	–	–	–	14	13	7	16	34	22	12	12	6	2	1	1	–	4	3	–
Transportation and utilities	19	38.5	277.00	260.00	210.00– 323.00	–	–	–	–	–	–	2	–	2	2	2	2	3	1	–	–	1	–	2	2	–
Secretaries I	44	39.0	199.50	193.50	180.00– 209.50	–	–	–	–	–	11	9	6	7	6	2	2	1	–	–	–	–	–	–	–	–
Secretaries II	48	39.0	224.50	215.00	200.00– 242.50	–	–	–	–	–	5	5	1	6	13	8	3	3	4	–	–	–	–	–	–	–
Manufacturing	18	39.0	257.50	255.00	234.00– 288.50	–	–	–	–	–	–	2	–	–	2	4	3	3	4	–	–	–	–	–	–	–
Nonmanufacturing	30	37.5	204.50	207.00	185.50– 215.00	–	–	–	–	–	5	3	1	6	11	4	–	–	–	–	–	–	–	–	–	–
Secretaries III	69	39.0	267.50	275.50	227.50– 302.00	–	–	–	–	–	1	1	–	5	11	11	3	11	11	9	4	1	–	1	–	–
Manufacturing	33	40.0	298.50	299.00	281.00– 314.00	–	–	–	–	–	–	–	–	–	–	1	1	10	9	9	3	–	–	–	–	–
Nonmanufacturing	36	38.5	209.50	229.00	212.00– 245.00	–	–	–	–	–	1	1	–	5	11	10	2	1	2	–	1	1	–	1	–	–
Secretaries IV	36	39.0	271.00	260.00	231.50– 283.00	–	–	–	–	–	–	–	–	1	7	6	6	7	1	1	–	1	–	3	1	–
Nonmanufacturing	35	39.0	268.50	260.00	231.00– 278.00	–	–	–	–	–	–	–	–	1	7	6	6	7	1	1	–	–	–	3	1	–
Typists	104	37.0	149.50	141.50	135.00– 158.50	10	29	24	15	10	4	7	2	–	3	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	98	37.0	147.00	140.50	133.00– 155.00	10	29	24	15	9	3	5	2	–	1	–	–	–	–	–	–	–	–	–	–	–
Typists I	96	37.0	148.00	140.50	133.00– 155.00	10	29	24	15	6	4	7	1	–	3	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	93	37.0	145.50	140.00	132.00– 155.00	10	29	24	15	5	3	5	1	–	1	–	–	–	–	–	–	–	–	–	–	–
File clerks	98	37.5	152.50	150.00	138.00– 164.50	10	18	17	20	11	12	5	–	5	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	97	37.5	152.50	150.00	138.00– 164.50	10	18	17	20	11	11	5	–	5	–	–	–	–	–	–	–	–	–	–	–	–
File clerks I	83	37.5	153.00	150.00	136.50– 170.00	10	18	13	14	8	12	5	–	5	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	82	37.5	152.50	150.00	136.00– 169.50	10	18	13	14	8	11	5	–	5	–	–	–	–	–	–	–	–	–	–	–	–
Switchboard operators	29	38.0	201.00	182.00	140.00– 244.50	–	–	11	2	3	–	–	1	–	3	2	2	2	1	–	–	–	–	2	–	–
Nonmanufacturing	20	37.5	180.50	140.00	140.00– 183.00	–	–	11	2	3	–	–	–	–	1	–	1	–	–	–	–	–	–	2	–	–
Switchboard operator-receptionists	73	39.5	186.50	180.00	170.00– 200.00	–	–	2	13	2	19	6	7	13	5	1	1	3	–	–	1	–	–	–	–	–
Manufacturing	25	40.0	203.00	200.00	184.50– 206.00	–	–	–	–	–	5	4	–	10	3	–	–	3	–	–	–	–	–	–	–	–
Nonmanufacturing	48	39.0	178.50	170.00	150.00– 191.00	–	–	2	13	2	14	2	7	3	2	1	1	–	–	–	1	–	–	–	–	–
Order clerks	57	39.5	212.50	210.50	210.50– 215.00	–	–	–	1	1	2	–	–	5	44	–	–	3	1	–	–	–	–	–	–	–
Order clerks I	57	39.5	212.50	210.50	210.50– 215.00	–	–	–	1	1	2	–	–	5	44	–	–	3	1	–	–	–	–	–	–	–
Accounting clerks	378	39.0	238.50	202.00	177.00– 272.00	–	2	2	12	37	43	53	29	25	43	21	14	7	13	1	3	36	–	–	11	26
Manufacturing	78	40.0	221.50	220.00	195.00– 239.50	–	–	–	–	7	3	7	7	10	16	12	5	3	7	1	–	–	–	–	–	–
Nonmanufacturing	300	39.0	243.00	196.00	175.00– 333.50	–	2	2	12	30	40	46	22	15	27	9	9	4	6	–	3	36	–	–	11	26
Transportation and utilities	88	39.0	369.50	351.50	351.50– 430.50	–	–	–	–	–	–	–	2	1	–	5	2	2	–	–	3	36	–	–	11	26
Accounting clerks I	24	39.0	171.00	169.00	160.00– 179.00	–	1	–	3	8	6	2	1	3	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	24	39.0	171.00	169.00	160.00– 179.00	–	1	–	3	8	6	2	1	3	–	–	–	–	–	–	–	–	–	–	–	–
Accounting clerks II	243	39.5	218.50	187.50	172.00– 224.00	–	1	2	9	29	37	49	22	14	28	11	6	5	–	–	3	2	–	–	11	14
Manufacturing	51	40.0	206.00	200.00	181.50– 228.50	–	–	–	–	7	3	7	7	8	9	4	3	3	–	–	–	–	–	–	–	–
Nonmanufacturing	192	39.0	222.00	184.00	171.00– 224.00	–	1	2	9	22	34	42	15	6	19	7	3	2	–	–	3	2	–	–	11	14
Accounting clerks III	99	38.5	297.50	290.00	225.00– 351.50	–	–	–	–	–	–	2	6	8	14	10	8	1	4	–	–	34	–	–	–	12
Manufacturing	23	39.5	241.50	233.00	224.00– 248.50	–	–	–	–	–	–	–	–	2	7	6	2	–	4	–	–	–	–	–	–	–
Nonmanufacturing	76	38.0	314.00	351.50	226.00– 351.50	–	–	–	–	–	–	2	6	6	7	2	6	1	–	–	–	34	–	–	–	12

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Portland, Me., December 1981 —Continued

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[2]			Number of workers receiving straight-time weekly earnings (in dollars) of —																					
			Mean[3]	Median[3]	Middle range[3]	120 and under 130	130 – 140	140 – 150	150 – 160	160 – 170	170 – 180	180 – 190	190 – 200	200 – 210	210 – 230	230 – 250	250 – 270	270 – 290	290 – 310	310 – 330	330 – 350	350 – 370	370 – 390	390 – 410	410 – 430	430 – 450
Payroll clerks	67	38.5	215.00	195.00	173.00– 243.50	–	–	–	4	3	15	10	10	2	5	2	2	6	1	2	–	–	–	–	–	3
Manufacturing	29	39.5	221.50	198.50	182.50– 272.00	–	–	–	3	1	2	5	4	1	2	–	1	7	1	2	–	–	–	–	–	–
Nonmanufacturing	38	38.0	210.00	180.50	173.00– 215.00	–	–	–	1	2	13	5	6	1	3	2	1	1	–	–	–	–	–	–	–	3
Key entry operators	178	38.0	196.00	172.00	152.00– 210.00	5	–	28	24	20	17	18	12	7	14	7	2	1	2	–	12	–	–	7	–	–
Manufacturing	31	40.0	205.50	200.50	184.00– 229.00	–	–	–	2	7	–	1	4	2	8	4	1	–	2	–	–	–	–	–	–	–
Nonmanufacturing	145	38.0	194.00	171.00	150.00– 197.00	5	–	28	22	13	17	17	8	5	6	3	1	1	–	–	12	–	–	7	–	–
Transportation and utilities	21	39.0	349.00	333.50	333.50– 406.00	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	12	–	–	7	–	–
Key entry operators I	147	38.0	171.50	166.50	150.00– 189.00	5	–	28	24	20	17	18	12	6	10	6	–	1	–	–	–	–	–	–	–	–
Manufacturing	23	40.0	192.50	190.00	180.00– 217.00	–	–	–	2	7	–	1	4	2	4	3	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	124	37.5	166.00	165.00	147.50– 184.50	5	–	28	22	13	17	17	8	4	6	3	–	1	–	–	–	–	–	–	–	–
Key entry operators II	29	39.0	320.00	333.50	280.00– 346.50	–	–	–	–	–	–	–	–	1	4	1	2	–	2	–	12	–	–	7	–	–
Nonmanufacturing:																										
Transportation and utilities	20	39.0	356.50	333.50	333.50– 406.00	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	12	–	–	7	–	–

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Portland, Me., December 1981

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[1]			Number of workers receiving straight-time weekly earnings (in dollars) of —																				
			Mean[2]	Median[2]	Middle range[2]	160 and under 180	180 – 200	200 – 220	220 – 240	240 – 260	260 – 280	280 – 300	300 – 320	320 – 340	340 – 360	360 – 380	380 – 400	400 – 420	420 – 440	440 – 460	460 – 480	480 – 500	500 – 520	520 – 540	540 – 560	560 and over
Computer systems analysts (business)	30	39.0	444.50	430.50	397.50– 467.00	–	–	–	–	–	–	–	–	–	1	–	7	4	4	4	3	2	–	4	–	1
Computer systems analysts (business) II	18	39.0	418.50	407.50	389.50– 446.00	–	–	–	–	–	–	–	–	–	1	–	7	2	3	2	2	–	–	1	–	–
Computer programmers (business)	59	39.0	319.00	325.00	280.00– 364.50	–	1	1	7	2	4	4	9	4	10	10	3	2	1	–	1	–	–	–	–	–
Nonmanufacturing	46	38.5	308.50	309.00	260.00– 357.00	–	1	1	7	2	4	4	8	3	5	6	2	1	1	–	1	–	–	–	–	–
Computer programmers (business) I	20	39.0	255.00	240.50	225.00– 292.00	–	1	1	7	2	2	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	19	39.0	252.50	240.00	225.00– 287.00	–	1	1	7	2	2	3	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Computer programmers (business) II	31	38.5	341.50	346.00	319.50– 363.50	–	–	–	–	–	2	1	5	4	10	6	1	1	1	–	–	–	–	–	–	–
Nonmanufacturing	21	38.5	333.50	338.00	317.50– 357.00	–	–	–	–	–	2	1	5	3	5	4	–	–	1	–	–	–	–	–	–	–
Computer operators	113	39.0	247.00	229.00	191.50– 273.50	12	21	15	13	14	10	3	8	2	11	–	–	2	–	1	1	–	–	–	–	–
Manufacturing	30	40.0	265.50	250.00	228.50– 307.00	–	1	5	6	5	4	1	2	2	3	–	–	1	–	–	–	–	–	–	–	–
Nonmanufacturing	83	39.0	240.00	216.00	190.00– 272.00	12	20	10	7	9	6	2	6	–	8	–	–	1	–	1	1	–	–	–	–	–
Computer operators I	58	39.0	219.00	196.00	190.00– 224.00	12	18	12	7	1	–	–	–	–	7	–	–	1	–	–	–	–	–	–	–	–
Nonmanufacturing	51	39.0	219.00	191.50	190.00– 220.00	12	17	9	5	–	–	–	–	–	7	–	–	1	–	–	–	–	–	–	–	–
Computer operators II	45	39.0	272.50	260.00	242.00– 302.00	–	3	3	5	11	9	2	6	1	3	–	–	–	–	1	1	–	–	–	–	–
Manufacturing	20	40.0	267.50	258.50	230.50– 301.50	–	–	2	4	4	4	1	2	1	2	–	–	–	–	1	1	–	–	–	–	–
Nonmanufacturing	25	39.0	276.00	260.00	245.00– 302.00	–	3	1	1	7	5	1	4	–	1	–	–	–	–	–	–	–	–	–	–	–
Drafters	99	42.0	323.50	334.00	290.50– 369.50	2	4	2	2	3	9	9	12	7	23	8	3	13	1	1	–	–	–	–	–	–
Drafters IV	33	41.5	358.00	359.50	320.00– 380.00	–	–	–	–	–	–	2	5	5	2	5	3	5	–	–	–	–	–	–	–	–

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Portland, Me., December 1981

Sex,[2] occupation, and industry division	Number of workers	Average (mean[3])	
		Weekly hours[1] (standard)	Weekly earnings (in dollars)[1]
Office occupations – men			
Accounting clerks:			
Accounting clerks III	16	39.0	360.50
Nonmanufacturing	16	39.0	360.50
Office occupations – women			
Secretaries	211	39.0	246.50
Manufacturing	65	38.5	274.50
Nonmanufacturing	146	38.5	233.50
Transportation and utilities	19	38.5	277.00
Secretaries I	44	39.0	198.50
Secretaries II	48	38.0	224.50
Manufacturing	18	39.0	257.50
Nonmanufacturing	30	37.5	204.50
Secretaries III	69	39.0	267.50
Manufacturing	33	40.0	298.50
Nonmanufacturing	36	38.5	239.50
Secretaries IV	36	39.0	271.00
Nonmanufacturing	35	39.0	268.50
Typists	104	37.0	149.50
Nonmanufacturing	98	37.0	147.00
Typists I	96	37.0	148.00
Nonmanufacturing	93	37.0	145.50
File clerks	98	37.5	152.50
Nonmanufacturing	97	37.5	152.50
File clerks I	83	37.5	153.00
Nonmanufacturing	82	37.5	152.50
Switchboard operators	29	38.0	201.00
Nonmanufacturing	20	37.5	180.50
Switchboard operator-receptionists	73	39.5	186.50
Manufacturing	25	40.0	203.00
Nonmanufacturing	48	39.0	178.50
Accounting clerks	338	39.0	225.50
Manufacturing	77	40.0	221.50
Nonmanufacturing	261	39.0	226.50
Transportation and utilities	60	38.5	351.50
Accounting clerks I	22	39.0	171.00
Nonmanufacturing	22	39.0	171.00
Accounting clerks II	222	38.5	205.00
Manufacturing	50	40.0	205.50
Nonmanufacturing	172	39.0	204.50
Transportation and utilities	24	39.5	340.50
Accounting clerks III	83	38.5	285.00
Manufacturing	23	39.5	241.50
Nonmanufacturing	60	38.0	302.00
Payroll clerks	64	38.5	207.50
Manufacturing	29	39.5	221.50
Nonmanufacturing	35	37.5	196.00
Key entry operators	176	38.0	198.00
Manufacturing	31	40.0	205.50
Nonmanufacturing	145	38.0	194.00
Transportation and utilities	21	39.0	349.00
Key entry operators I	147	38.0	171.50
Manufacturing	23	40.0	192.50
Nonmanufacturing	124	37.5	168.00
Key entry operators II	29	39.0	320.00
Nonmanufacturing:			
Transportation and utilities	20	39.0	356.50
Professional and technical occupations – men			
Computer systems analysts (business)	24	39.0	444.00
Computer systems analysts (business) II	16	39.0	418.00
Computer programmers (business)	38	39.0	330.50
Nonmanufacturing	29	38.5	321.50
Computer programmers (business) II	25	38.5	338.00
Nonmanufacturing	17	38.0	329.00
Computer operators	48	38.5	290.00
Nonmanufacturing	34	38.5	283.50
Computer operators II	26	39.0	291.00
Nonmanufacturing	16	39.0	289.00
Drafters	97	42.0	326.00
Drafters IV	33	41.5	358.00
Professional and technical occupations – women			
Computer programmers (business)	21	39.0	298.00
Nonmanufacturing	17	39.0	285.50
Computer operators	65	39.5	215.00
Manufacturing	16	40.0	231.00
Nonmanufacturing	49	39.5	210.00
Computer operators I	45	39.5	201.50
Nonmanufacturing	39	39.5	199.50
Computer operators II	19	39.5	246.50

See footnotes at end of tables.

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Portland, Me., December 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)[1]			Number of workers receiving straight-time hourly earnings (in dollars) of —																					
		Mean[2]	Median[2]	Middle range[2]	5.70 and under 6.00	6.00 – 6.30	6.30 – 6.60	6.60 – 6.90	6.90 – 7.20	7.20 – 7.50	7.50 – 7.80	7.80 – 8.10	8.10 – 8.40	8.40 – 8.70	8.70 – 9.00	9.00 – 9.30	9.30 – 9.60	9.60 – 9.90	9.90 – 10.20	10.20 – 10.50	10.50 – 10.80	10.80 – 11.10	11.10 – 11.40	11.40 – 11.70	11.70 – 12.30	12.30 – 12.90	12.90 – 13.50
Maintenance electricians	60	8.62	9.48	7.40– 9.48	–	–	–	–	17	3	3	–	–	1	5	4	23	6	1	1	–	–	–	5	–	–	–
Manufacturing	54	8.62	9.18	7.16– 9.48	–	–	–	–	17	3	3	–	–	1	5	4	23	6	1	1	–	–	–	–	–	–	–
Maintenance machinists	95	8.68	9.48	7.02– 9.48	–	–	–	12	14	12	–	–	1	1	1	5	31	4	3	–	1	–	–	10	–	–	–
Manufacturing	85	8.35	9.12	7.02– 9.48	–	–	–	12	14	12	–	–	1	1	1	5	31	4	3	–	1	–	–	–	–	–	–
Maintenance mechanics (machinery)	96	7.11	6.87	6.34– 7.66	4	14	17	20	6	3	10	–	–	22	1	–	–	–	1	–	–	–	–	–	–	–	–
Manufacturing	80	6.96	6.60	6.34– 7.39	4	14	17	20	3	3	1	–	–	18	1	–	–	–	1	–	–	–	–	–	–	–	–
Maintenance mechanics (motor vehicles)	87	8.70	8.43	7.15– 9.30	–	2	5	–	20	7	3	5	–	12	7	4	5	–	–	–	–	1	–	–	7	5	4
Manufacturing	28	8.24	8.73	7.20– 9.12	–	–	3	–	–	7	–	1	–	2	7	4	4	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	59	8.91	7.93	7.15–12.10	–	2	2	–	20	–	3	4	–	10	–	–	1	–	–	–	–	1	–	–	7	5	4
Transportation and utilities	57	9.00	7.93	7.15–12.16	–	2	–	–	20	–	3	4	–	10	–	–	1	–	–	–	–	1	–	–	7	5	4
Tool and die makers	28	8.39	8.12	7.36– 9.43	–	–	–	–	–	12	–	–	5	1	–	–	4	4	1	–	1	–	–	–	–	–	–
Manufacturing	28	8.39	8.12	7.36– 9.43	–	–	–	–	–	12	–	–	5	1	–	–	4	4	1	–	1	–	–	–	–	–	–

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Portland, Me., December 1981

Occupation and industry division	Number of workers	Hourly earnings (in dollars)[1]			Number of workers receiving straight-time hourly earnings (in dollars) of —																						
		Mean[2]	Median[3]	Middle range[4]	3.30 and under 3.60	3.60 – 3.90	3.90 – 4.20	4.20 – 4.50	4.50 – 4.80	4.80 – 5.10	5.10 – 5.40	5.40 – 5.70	5.70 – 6.00	6.00 – 6.30	6.30 – 6.60	6.60 – 6.90	6.90 – 7.20	7.20 – 7.50	7.50 – 7.80	7.80 – 8.10	8.10 – 8.40	8.40 – 8.70	8.70 – 9.00	9.00 – 9.30	9.30 – 9.60	9.60 – 9.90	9.90 and over
Truckdrivers	584	6.22	6.60	6.20–10.64	1	7	4	8	10	3	5	15	69	136	30	30	5	10	4	18	8	1	2	48	1	23	* 148
Manufacturing	133	7.16	6.60	6.10– 8.12	–	–	1	–	–	1	4	8	9	17	18	21	–	10	4	8	8	1	2	–	1	22	–
Nonmanufacturing	451	6.53	6.51	6.20–12.71	1	7	3	8	10	2	1	7	60	119	12	9	5	–	–	10	–	–	–	48	–	1	148
Transportation and utilities	332	6.99	6.20	6.20–12.71	1	1	3	1	5	1	–	7	59	105	–	–	–	–	–	–	–	–	–	–	–	1	148
Truckdrivers, light truck	41	5.24	5.15	4.20– 6.10	1	7	2	8	2	–	1	6	–	7	–	3	–	3	–	–	–	–	–	–	–	1	–
Nonmanufacturing	27	4.61	4.38	3.79– 4.98	1	7	2	8	2	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Truckdrivers, medium truck	60	6.32	6.15	5.59– 6.81	–	–	1	–	5	2	4	6	7	12	5	5	–	–	4	–	4	1	2	–	–	–	2
Manufacturing	45	6.44	6.15	5.70– 6.83	–	–	1	–	–	1	3	6	6	7	5	5	–	–	4	–	4	1	2	–	–	–	–
Nonmanufacturing	15	5.96	5.70	4.50– 6.25	–	–	–	–	5	1	1	–	1	5	–	–	–	–	–	–	–	–	–	–	–	–	2
Truckdrivers, tractor-trailer	397	8.14	8.60	6.20– 9.70	–	–	–	–	–	–	–	2	58	113	24	22	5	7	–	18	1	–	–	48	1	22	78
Manufacturing	67	7.82	7.20	6.55– 9.70	–	–	–	–	–	–	–	2	–	3	12	13	–	7	–	6	1	–	–	–	–	22	–
Nonmanufacturing	330	8.21	8.20	6.20– 9.00	–	–	–	–	–	–	–	–	58	110	12	9	5	–	–	10	–	–	–	48	–	–	78
Shippers	34	5.87	5.47	5.10– 8.26	–	–	–	1	6	1	7	5	3	2	2	1	–	–	–	–	5	–	–	1	–	–	–
Manufacturing	18	6.70	6.23	5.60– 8.35	–	–	–	–	–	–	2	4	1	2	2	1	–	–	–	–	5	–	–	1	–	–	–
Receivers	20	5.74	5.80	4.72– 6.26	–	–	–	1	5	–	3	–	2	4	3	–	–	–	–	1	1	–	–	–	–	–	–
Shippers and receivers	61	5.48	5.41	4.75– 5.93	4	–	–	3	10	7	2	18	2	1	7	2	–	1	2	–	2	–	–	–	–	–	–
Manufacturing	46	5.75	5.50	5.20– 6.38	–	–	–	3	1	7	1	18	2	1	7	2	–	1	1	–	2	–	–	–	–	–	–
Nonmanufacturing	15	4.62	4.75	4.05– 4.75	4	–	–	–	9	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Warehousemen:																											
Manufacturing	42	6.28	6.15	5.61– 6.56	–	–	–	–	–	–	–	13	2	10	8	–	3	–	6	–	–	–	–	–	–	–	–
Order fillers	315	4.42	3.75	3.35– 4.86	156	3	10	15	9	63	14	2	–	12	1	–	–	–	–	30	–	–	–	–	–	–	–
Manufacturing	77	6.12	5.58	4.63– 7.99	–	1	7	9	6	11	3	2	–	7	1	–	–	–	–	30	–	–	–	–	–	–	–
Shipping packers	66	5.15	4.86	4.66– 5.26	–	–	–	6	1	40	4	–	5	6	–	–	4	–	–	–	–	–	–	–	–	–	–
Manufacturing	26	5.66	5.75	4.96– 6.09	–	–	–	–	1	8	4	–	5	6	–	–	4	–	–	–	–	–	–	–	–	–	–
Material handling laborers	192	6.26	5.50	4.81– 7.45	6	13	22	2	–	23	6	37	8	6	–	6	12	8	–	26	–	–	–	–	–	–	17
Manufacturing	87	5.37	5.50	4.81– 5.50	2	–	13	–	–	14	6	37	–	6	–	–	4	–	–	5	–	–	–	–	–	–	–
Nonmanufacturing	105	7.00	6.95	4.25– 7.90	4	13	9	2	–	9	–	–	8	–	–	6	8	8	–	21	–	–	–	–	–	–	• • 17
Forklift operators	121	5.93	5.99	5.50– 6.44	12	–	–	–	1	1	15	18	22	6	28	–	1	6	4	9	–	–	–	–	–	–	–
Manufacturing	102	6.24	6.00	5.68– 6.44	–	–	–	–	1	1	15	10	22	6	28	–	–	6	4	9	–	–	–	–	–	–	–
Guards	222	3.96	3.53	3.35– 3.75	115	70	1	1	4	9	–	2	–	3	–	–	2	–	15	–	–	–	–	–	–	–	–
Manufacturing	33	6.28	7.08	4.80– 7.61	–	–	–	–	4	9	–	2	–	1	–	–	2	–	15	–	–	–	–	–	–	–	–
Guards I	222	3.96	3.53	3.35– 3.75	115	70	1	1	4	9	–	2	–	3	–	–	2	–	15	–	–	–	–	–	–	–	–
Manufacturing	33	6.28	7.08	4.80– 7.61	–	–	–	–	4	9	–	2	–	1	–	–	2	–	15	–	–	–	–	–	–	–	–
Janitors, porters, and cleaners	237	5.85	5.56	4.83– 6.90	18	5	11	2	19	23	24	25	7	20	1	–	40	1	27	–	–	8	–	–	–	6	–
Manufacturing	160	6.03	6.02	5.13– 6.90	4	1	6	1	6	17	18	21	6	18	–	–	35	–	27	–	–	–	–	–	–	6	–
Nonmanufacturing	77	5.49	4.88	3.94– 6.95	14	4	5	1	13	6	6	4	1	2	1	–	5	1	–	–	–	8	–	–	–	6	–
Transportation and utilities	20	7.93	8.64	5.50– 9.74	–	–	–	–	2	–	–	4	–	–	–	–	–	–	–	–	–	8	–	–	–	6	–

* Workers were distributed as follows: 2 at $9.90 to $10.20; and 146 at $11.70 and over.
• • All workers were at $11.70 and over.
Also see footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Portland, Me., December 1981

Sex,[1] occupation, and industry division	Number of workers	Average (mean[2]) hourly earnings (in dollars)[3]
Maintenance, toolroom, and powerplant occupations – men		
Maintenance electricians	69	8.82
Manufacturing	64	8.82
Maintenance machinists	95	8.68
Manufacturing	85	8.35
Maintenance mechanics (machinery)	98	7.11
Manufacturing	80	6.96
Maintenance mechanics (motor vehicles)	87	8.70
Manufacturing	28	8.24
Nonmanufacturing	59	8.91
Transportation and utilities	57	9.00
Tool and die makers	28	8.39
Manufacturing	28	8.39
Material movement and custodial occupations – men		
Truckdrivers	584	8.22
Manufacturing	133	7.16
Nonmanufacturing	451	8.53
Transportation and utilities	332	8.99
Truckdrivers, light truck	41	5.24
Nonmanufacturing	27	4.81
Truckdrivers, medium truck	60	6.32
Manufacturing	45	6.44
Nonmanufacturing	15	5.96
Truckdrivers, tractor-trailer	397	8.14
Manufacturing	67	7.82
Nonmanufacturing	330	8.21
Shippers	34	5.87
Manufacturing	18	6.70
Receivers	19	5.76
Shippers and receivers	54	5.49
Manufacturing	43	5.73
Warehousemen:		
Manufacturing	40	6.30
Order fillers	160	5.04
Manufacturing	74	6.10
Shipping packers	33	5.16
Material handling laborers	192	6.26
Manufacturing	87	5.37
Nonmanufacturing	105	7.00
Forklift operators	118	5.90
Manufacturing	100	6.22
Guards	193	4.03
Manufacturing	33	6.28
Nonmanufacturing	160	3.56
Guards I	193	4.03
Manufacturing	33	6.28
Nonmanufacturing	160	3.56
Janitors, porters, and cleaners	212	5.76
Manufacturing	143	6.06
Nonmanufacturing	69	5.14
Material movement and custodial occupations – women		
Janitors, porters, and cleaners	23	6.59
Manufacturing	17	5.74

See footnotes at end of tables.

Table A-7. Indexes of earnings and percent increases for selected occupational groups, Portland, Me., selected periods

Period[4]	All industries					Manufacturing					Nonmanufacturing			
	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (December 1977 = 100):														
December 1980	130.6	132.5	(*)	131.6	130.8	(*)	(*)	(*)	127.5	129.1	130.4	(*)	(*)	132.1
December 1981	144.4	143.6	(*)	144.0	141.9	(*)	(*)	(*)	139.6	141.6	144.7	(*)	(*)	141.6
Percent increases:														
November 1972 to November 1973	5.8	(*)	(*)	8.5	7.9	(*)	(*)	(*)	7.9	7.7	5.6	(*)	(*)	7.7
November 1973 to November 1974	8.5	(*)	(*)	7.6	9.6	(*)	(*)	(*)	5.7	6.9	8.5	(*)	(*)	11.4
November 1974 to November 1975	7.6	(*)	(*)	9.0	11.2	(*)	(*)	(*)	8.4	9.8	7.7	(*)	(*)	12.5
November 1975 to December 1976:														
13-month increase	7.6	(*)	(*)	9.0	5.7	(*)	(*)	(*)	7.5	6.3	7.4	(*)	(*)	5.0
Annual rate of increase	7.0	(*)	(*)	8.3	5.3	(*)	(*)	(*)	6.9	5.8	6.8	(*)	(*)	4.6
December 1976 to December 1977	9.0	(*)	(*)	7.4	8.7	(*)	(*)	(*)	7.2	8.4	9.1	(*)	(*)	9.0
December 1977 to December 1978	8.2	12.6	(*)	7.9	8.7	(*)	(*)	(*)	8.3	10.1	7.8	(*)	(*)	8.0
December 1978 to December 1979	10.5	6.9	(*)	11.6	9.6	(*)	(*)	(*)	9.1	7.9	10.9	(*)	(*)	10.4
December 1979 to December 1980	9.2	10.1	(*)	9.3	9.8	(*)	(*)	(*)	7.9	8.7	9.0	(*)	(*)	10.8
December 1980 to December 1981	10.6	8.4	(*)	9.4	8.5	(*)	(*)	(*)	9.5	9.7	11.0	(*)	(*)	7.2

See footnotes at end of tables.

Table A-8. Pay relationships in establishments with paired office clerical occupations, Portland, Me., December 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100															
	Secretaries				Typists	File clerks	Switchboard operators	Switchboard operator-receptionists	Order clerks	Accounting clerks			Payroll clerks	Key entry operators	
	I	II	III	IV	I	I			I	I	II	III		I	II
Secretaries I	100	85	82	(*)	123	117	101	(*)	(*)	(*)	104	91	(*)	107	(*)
Secretaries II	118	100	90	77	(*)	(*)	119	113	(*)	(*)	113	101	97	136	102
Secretaries III	122	111	100	87	(*)	138	116	129	118	(*)	111	102	108	128	108
Secretaries IV	(*)	129	115	100	179	188	128	132	(*)	(*)	120	109	114	147	(*)
Typists I	81	(*)	(*)	56	100	(*)	(*)	82	(*)	96	87	70	71	92	(*)
File clerks I	86	(*)	72	60	(*)	100	99	74	76	86	83	66	72	92	(*)
Switchboard operators	99	84	96	78	(*)	101	100	(*)	(*)	(*)	93	89	88	102	96
Switchboard operator-receptionists	(*)	88	78	62	123	136	(*)	100	97	117	98	87	93	107	(*)
Order clerks I	(*)	(*)	85	(*)	(*)	132	(*)	104	100	(*)	104	(*)	93	104	(*)
Accounting clerks I	(*)	(*)	(*)	(*)	104	113	(*)	86	(*)	100	85	(*)	71	87	(*)
Accounting clerks II	98	89	90	83	115	120	108	102	96	118	100	91	92	106	104
Accounting clerks III	110	99	98	92	142	152	112	115	(*)	(*)	110	100	103	125	108
Payroll clerks	(*)	103	94	88	141	139	114	108	108	140	108	97	100	115	108
Key entry operators I	93	74	78	66	109	109	98	93	96	115	95	80	87	100	(*)
Key entry operators II	(*)	98	93	(*)	(*)	(*)	102	(*)	(*)	(*)	96	92	93	(*)	100

NOTE: This matrix table shows the average (mean) relationship of earnings in establishments between any two occupations compared. Earnings for an occupation in the table stub are expressed as a percent of the earnings for an occupation in the column heading at the point where the data lines for the two intersect. For example, reading across the Secretaries II row, the 118 in the Secretaries I column indicates that Secretaries II average 118 percent of (or 18 percent more than) the earnings of Secretaries I.

See appendix A for method of computation.

Also see footnotes at end of tables.

Table A-9. Pay relationships in establishments with paired professional and technical occupations, Portland, Me., December 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100					
	Computer systems analysts (business)	Computer programmers (business)		Computer operators		Drafters
	II	I	II	I	II	IV
Computer systems analysts (business) II	100	(*)	121	177	145	(*)
Computer programmers (business) I	(*)	100	74	130	110	(*)
Computer programmers (business) II	82	135	100	178	126	(*)
Computer operators I	56	77	56	100	81	81
Computer operators II	69	91	79	124	100	89
Drafters IV	(*)	(*)	(*)	123	113	100

See table A-8 for description of these pay relationships and appendix A for method of computation.

Also see footnotes at end of tables.

Table A-10.Pay relationships in establishments with paired maintenance, toolroom, and powerplant occupations, Portland, Me., December 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100				
	Electricians	Machinists	Mechanics		Tool and die makers
			Machinery	Motor vehicles	
Maintenance electricians	100	99	109	103	98
Maintenance machinists	101	100	(*)	104	(*)
Maintenance mechanics (machinery)	92	(*)	100	95	(*)
Maintenance mechanics (motor vehicles)	97	90	106	100	100
Tool and die makers	102	(*)	(*)	(*)	

See table A-8 for description of these pay relationships and appendix A for method of computation.
Also see footnotes at end of tables.

Table A-11.Pay relationships in establishments with paired material movement and custodial occupations, Portland, Me., December 1981

Occupation for which earnings are compared	Occupation for which average earnings equal 100											
	Truckdrivers			Shippers	Receivers	Shippers and receivers	Order fillers	Shipping packers	Material handling laborers	Forklift operators	Guards	Janitors, porters, and cleaners
	Light truck	Medium truck	Tractor-trailer								I	
Truckdrivers, light truck	100	(*)	(*)	90	(*)	(*)	(*)	98	104	97	(*)	(*)
Truckdrivers, medium truck	(*)	100	(*)	(*)	96	97	115	114	(*)	105	(*)	122
Truckdrivers, tractor-trailer	(*)	(*)	100	140	143	130	(*)	(*)	113	123	(*)	146
Shippers	111	(*)	72	100	96	(*)	109	(*)	112	105	(*)	118
Receivers	(*)	102	70	105	100	(*)	111	(*)	110	99	(*)	112
Shippers and receivers	(*)	103	77	(*)	(*)	100	(*)	104	117	107	(*)	117
Order fillers	(*)	87	(*)	92	90	(*)	100	(*)	96	(*)	(*)	104
Shipping packers	102	88	(*)	(*)	(*)	96	(*)	100	104	92	(*)	101
Material handling laborers	96	(*)	88	89	91	86	104	96	100	94	96	107
Forklift operators	103	95	81	95	101	93	(*)	108	106	100	102	109
Guards I	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	104	98	100	109
Janitors, porters, and cleaners	(*)	82	68	85	90	95	96	99	93	92	92	100

See table A-8 for description of these pay relationships and appendix A for method of computation.
Also see footnotes at end of tables.

Table B-1. Minimum entrance salaries for inexperienced typists and clerks in Portland, Me., December 1981

Minimum weekly straight-time salaries[1]	Inexperienced typists				Other inexperienced clerical workers[2]						
		Manufacturing		Nonmanufacturing		Manufacturing		Nonmanufacturing			
	All industries	All schedules	40.00-hour schedules	All schedules	All industries	All schedules	40.00-hour schedules	All schedules	40.00-hour schedules	37.50-hour schedules	36.20-hour schedules
Establishments studied	89	31	XXX	58	89	31	XXX	58	XXX	XXX	XXX
Establishments having a specified minimum	11	5	5	6	44	18	17	26	10	9	3
$120.00 and under $125.00	-	-	-	-	1	-	-	1	-	-	1
$125.00 and under $130.00	1	-	-	1	5	-	-	5	1	3	1
$130.00 and under $135.00	1	-	-	1	3	-	-	3	-	1	1
$135.00 and under $140.00	-	-	-	-	5	1	1	4	-	3	-
$140.00 and under $145.00	-	-	-	-	5	-	-	5	2	1	-
$145.00 and under $150.00	-	-	-	-	1	1	1	-	-	-	-
$150.00 and under $155.00	3	1	1	2	3	3	3	-	-	-	-
$155.00 and under $160.00	1	1	1	-	3	3	3	-	-	-	-
$160.00 and under $165.00	1	-	-	1	6	3	3	3	3	-	-
$165.00 and under $170.00	-	-	-	-	-	-	-	-	-	-	-
$170.00 and under $175.00	-	-	-	-	1	1	1	-	-	-	-
$175.00 and under $180.00	1	1	1	-	1	1	1	-	-	-	-
$180.00 and under $185.00	1	1	1	-	3	2	2	1	-	1	-
$185.00 and under $190.00	-	-	-	-	1	1	-	-	-	-	-
$190.00 and under $195.00	-	-	-	-	-	-	-	-	-	-	-
$195.00 and under $200.00	1	-	-	1	1	-	-	1	1	-	-
$200.00 and under $205.00	-	-	-	-	-	-	-	-	-	-	-
$205.00 and under $210.00	-	-	-	-	-	-	-	-	-	-	-
$210.00 and under $215.00	-	-	-	-	-	-	-	-	-	-	-
$215.00 and under $220.00	-	-	-	-	1	1	1	-	-	-	-
$220.00 and under $225.00	-	-	-	-	-	-	-	-	-	-	-
$225.00 and under $230.00	-	-	-	-	-	-	-	-	-	-	-
$230.00 and under $235.00	-	-	-	-	-	-	-	-	-	-	-
$235.00 and under $240.00	-	-	-	-	-	-	-	-	-	-	-
$240.00 and under $245.00	-	-	-	-	-	-	-	-	-	-	-
$245.00 and under $250.00	-	-	-	-	-	-	-	-	-	-	-
$250.00 and under $255.00	-	-	-	-	-	-	-	-	-	-	-
$255.00 and under $260.00	-	-	-	-	-	-	-	-	-	-	-
$260.00 and under $265.00	-	-	-	-	-	-	-	-	-	-	-
$265.00 and under $270.00	-	-	-	-	-	-	-	-	-	-	-
$270.00 and under $275.00	1	1	1	-	1	1	1	-	-	-	-
$275.00 and under $280.00	-	-	-	-	-	-	-	-	-	-	-
$280.00 and under $285.00	-	-	-	-	-	-	-	-	-	-	-
$285.00 and under $290.00	-	-	-	-	-	-	-	-	-	-	-
$290.00 and under $295.00	-	-	-	-	-	-	-	1	1	-	-
$295.00 and under $300.00	-	-	-	-	1	-	-	-	-	-	-
$300.00 and under $305.00	-	-	-	-	-	-	-	-	-	-	-
$305.00 and under $310.00	-	-	-	-	-	-	-	2	2	-	-
$310.00 and under $315.00	-	-	-	-	2	-	-	-	-	-	-
$315.00 and over	-	-	-	-	-	-	-	-	-	-	-
Establishments having no specified minimum	8	3	XXX	5	20	9	XXX	11	XXX	XXX	XXX
Establishments which did not employ workers in this category	70	23	XXX	47	25	4	XXX	21	XXX	XXX	XXX

See footnotes at end of tables.

Table B-2. Late-shift pay provisions for full-time manufacturing production and related workers in Portland, Me., December 1981

(All full-time manufacturing production and related workers = 100 percent)

Item	All workers[1]		Workers on late shifts	
	Second shift	Third shift	Second shift	Third shift
Percent of workers				
In establishments with late-shift provisions	70.8	60.3	15.9	6.1
With no pay differential for late-shift work	-	-	-	-
With pay differential for late-shift work	70.8	60.3	15.9	6.1
Uniform cents-per-hour differential	40.2	36.0	8.1	3.0
Uniform percentage differential	30.5	24.4	7.8	3.1
Average pay differential				
Uniform cents-per-hour differential	15.1	21.9	14.8	23.9
Uniform percentage differential	10.0	13.3	10.0	13.1
Percent of workers by type and amount of pay differential				
Uniform cents-per-hour:				
6 cents	1.7	-	.2	-
8 cents	-	1.7	-	-
10 cents	5.0	-	1.8	-
12 cents	11.7	-	2.4	-
15 cents	6.8	7.0	1.1	-
16 and under 17 cents	2.6	-	.1	-
20 cents	7.9	7.3	1.4	.3
21 and under 22 cents	2.3	-	.4	-
24 cents	-	11.7	-	2.4
25 cents	2.2	2.2	.8	.1
30 cents	-	3.4	-	.1
32 cents	-	2.6	-	-
Uniform percentage:				
10 percent	30.5	8.2	7.8	1.2
15 percent	-	16.2	-	1.9

See footnotes at end of tables.

Table B-3. Scheduled weekly hours and days of full-time first-shift workers in Portland, Me., December 1981

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
Percent of workers by scheduled weekly hours and days								
All full-time workers	100	100	100	100	100	100	100	100
30 hours-5 days	2	-	5	-	-	-	-	-
35 hours-5 days	-	-	-	-	2	2	1	-
36 hours-4 days	-	-	-	-	2	-	2	-
36 1/4 hours-5 days	-	-	-	-	12	-	15	-
37 1/2 hours-5 days	5	2	11	3	22	7	27	62
38 hours	1	-	2	-	14	-	18	-
4 days	1	-	2	-	1	-	1	-
5 days	-	-	-	-	13	-	17	-
40 hours	78	78	76	85	48	91	36	38
4 1/2 days	2	3	-	-	(*)	2	-	-
5 days	76	75	76	85	48	89	36	38
42 hours-5 days	7	12	-	-	-	-	-	-
44 hours-5 days	2	-	4	-	-	-	-	-
46 hours-5 days	2	4	-	-	-	-	-	-
48 hours-5 1/2 days	1	-	3	12	-	-	-	-
50 hours	2	4	-	-	-	-	-	-
5 days	1	1	-	-	-	-	-	-
5 1/2 days	1	2	-	-	-	-	-	-
Average scheduled weekly hours								
All weekly work schedules	40.3	40.8	39.6	40.0	38.6	39.7	38.2	38.5

See footnotes at end of tables.

Table B-4. Annual paid holidays for full-time workers in Portland, Me., December 1981

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
Percent of workers								
All full-time workers	100	100	100	100	100	100	100	100
In establishments not providing paid holidays	1	-	4	-	-	-	-	-
In establishments providing paid holidays	99	100	96	100	100	100	100	100
Average number of paid holidays								
For workers in establishments providing holidays	9.3	9.6	8.7	10.5	10.1	9.6	10.2	10.9
Percent of workers by number of paid holidays provided								
9 half days	(1)	-	1	-	-	-	-	-
2 holidays	1	-	2	-	-	-	-	-
5 holidays	1	-	2	-	(1)	-	(1)	-
6 holidays	2	-	5	-	(1)	-	(1)	-
7 holidays	6	-	17	-	5	-	6	-
Plus 2 half days	1	2	-	-	(1)	2	-	-
8 holidays	13	13	13	12	7	13	5	2
Plus 1 half day	1	2	-	-	(1)	1	-	-
Plus 2 half days	1	-	3	-	1	-	1	-
9 holidays	22	26	12	4	14	29	10	2
Plus 1 half day	2	3	-	-	(1)	1	-	-
Plus 2 half days	5	7	-	-	2	9	-	-
10 holidays	27	29	23	30	30	19	33	8
Plus 1 half day	2	2	3	-	5	3	5	-
Plus 2 half days	2	3	-	-	9	3	11	-
11 holidays	7	5	11	38	18	19	18	61
12 holidays	5	6	3	11	1	1	1	7
13 holidays	-	-	-	-	7	-	9	-
14 holidays	(1)	-	1	4	-	-	-	-
Percent of workers by total paid holiday time provided[2]								
2 days or more	99	100	96	100	100	100	100	100
5 days or more	98	100	93	100	99	100	99	100
6 days or more	97	100	91	100	99	100	99	100
7 days or more	95	100	86	100	99	100	99	100
8 days or more	89	100	69	100	95	100	93	100
8 1/2 days or more	75	86	56	88	87	85	88	98
9 days or more	73	83	56	88	87	84	88	98
9 1/2 days or more	50	55	41	84	72	55	77	98
10 days or more	48	53	41	84	72	54	77	98
10 1/2 days or more	18	16	18	53	40	25	44	88
11 days or more	14	14	15	53	35	23	39	88
12 days or more	5	6	4	18	8	1	10	7
13 days or more	(1)	-	1	4	7	-	9	-

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Portland, Me., December 1981

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
Percent of workers								
All full-time workers	100	100	100	100	100	100	100	100
In establishments not providing paid vacations	-	-	-	-	-	-	-	-
In establishments providing paid vacations	100	100	100	100	100	100	100	100
Length-of-time payment	79	70	94	96	98	93	100	100
Percentage payment	21	30	6	4	2	7	-	-
Amount of paid vacation after:[1]								
6 months of service:								
Under 1 week	13	20	1	2	2	9	(2)	1
1 week	22	20	23	29	36	43	34	15
Over 1 and under 2 weeks	2	2	2	-	13	3	15	-
2 weeks	1	-	2	-	8	-	10	-
Over 2 and under 3 weeks	3	-	6	31	7	-	9	56
1 year of service:								
1 week	56	60	49	37	15	23	12	27
2 weeks	41	40	43	31	70	77	68	17
Over 2 and under 3 weeks	3	-	8	31	7	-	9	56
Over 3 and under 4 weeks	-	-	-	-	8	-	11	-
2 years of service:								
1 week	38	48	15	-	4	16	1	-
2 weeks	60	50	75	63	80	81	79	40
Over 2 and under 3 weeks	4	2	8	31	8	3	9	56
3 weeks	1	-	1	6	1	-	1	4
Over 3 and under 4 weeks	-	-	-	-	8	-	11	-
3 years of service:								
1 week	8	9	4	-	1	3	(2)	-
2 weeks	86	86	85	60	80	93	76	38
Over 2 and under 3 weeks	4	2	8	31	8	3	9	56
3 weeks	3	3	3	9	4	(2)	5	6
Over 3 and under 4 weeks	-	-	-	-	8	-	11	-
4 years of service:								
1 week	6	7	4	-	1	3	(2)	-
2 weeks	87	89	85	60	80	94	76	38
Over 2 and under 3 weeks	4	2	8	31	8	3	9	56
3 weeks	3	3	3	9	4	(2)	5	6
Over 3 and under 4 weeks	-	-	-	-	8	-	11	-
5 years of service:								
1 week	2	3	-	-	(2)	1	-	-
2 weeks	70	72	66	37	56	79	51	28
Over 2 and under 3 weeks	8	8	8	31	9	4	11	56
3 weeks	20	18	26	31	25	16	28	16
Over 3 and under 4 weeks	-	-	-	-	8	-	11	-

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Portland, Me., December 1981 —Continued

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
10 years of service:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	15	12	20	–	12	16	11	–
Over 2 and under 3 weeks	3	6	–	–	(1)	1	–	–
3 weeks	63	62	64	68	65	70	63	44
Over 3 and under 4 weeks	8	7	8	31	7	–	9	56
4 weeks	9	9	8	1	9	13	6	(1)
Over 4 and under 5 weeks	–	–	–	–	8	–	11	–
12 years of service:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	14	12	18	–	11	16	10	–
Over 2 and under 3 weeks	3	6	–	–	(1)	1	–	–
3 weeks	50	43	61	49	58	47	62	35
Over 3 and under 4 weeks	12	15	8	31	8	6	9	56
4 weeks	18	21	13	20	13	30	8	9
Over 4 and under 5 weeks	–	–	–	–	8	–	11	–
15 years of service:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	11	8	16	–	9	12	9	–
3 weeks	43	44	41	22	39	44	37	25
Over 3 and under 4 weeks	10	15	–	–	3	6	1	–
4 weeks	31	28	35	48	33	35	33	19
Over 4 and under 5 weeks	3	–	8	31	15	–	20	56
5 weeks	1	2	–	–	1	3	–	–
20 years of service:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	11	8	16	–	9	12	9	–
3 weeks	22	16	33	9	13	10	15	5
Over 3 and under 4 weeks	–	–	–	–	1	–	1	–
4 weeks	41	52	22	17	50	56	49	21
Over 4 and under 5 weeks	3	–	8	31	7	–	9	56
5 weeks	21	21	20	42	18	22	17	17
25 years of service:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	10	8	14	–	8	12	7	–
3 weeks	17	10	30	3	12	9	13	1
Over 3 and under 4 weeks	–	–	–	–	1	–	1	–
4 weeks	31	39	18	22	39	40	39	8
Over 4 and under 5 weeks	3	6	–	–	(1)	1	–	–
5 weeks	23	20	28	36	21	23	20	33
Over 5 and under 6 weeks	3	–	8	31	15	–	20	56
6 weeks	10	14	2	7	4	15	(1)	1
30 years of service or more:								
1 week	2	3	–	–	(1)	1	–	–
2 weeks	10	8	14	–	8	12	7	–
3 weeks	17	10	30	3	12	9	13	1
Over 3 and under 4 weeks	–	–	–	–	1	–	1	–
4 weeks	30	37	18	22	38	37	39	8
Over 4 and under 5 weeks	3	6	–	–	(1)	1	–	–
5 weeks	19	14	28	36	20	19	20	33
Over 5 and under 6 weeks	3	–	8	31	7	–	9	56
6 weeks	15	22	2	7	13	22	11	1

See footnotes at end of tables.

Table B-6. Health, insurance, and pension plans for full-time workers in Portland, Me., December 1991

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
Percent of workers								
All full-time workers	100	100	100	100	100	100	100	100
In establishments providing at least one of the benefits shown below[1]	99	100	98	100	99	100	99	100
Life insurance	96	100	90	100	99	100	99	100
Noncontributory plans	83	89	71	100	87	72	91	100
Accidental death and dismemberment insurance	84	91	73	93	77	90	73	99
Noncontributory plans	67	74	54	93	66	73	67	99
Sickness and accident insurance or sick leave or both[2]	84	98	78	88	94	97	93	77
Sickness and accident insurance	70	85	44	20	32	66	23	4
Noncontributory plans	62	81	29	20	27	62	17	4
Sick leave (full pay and no waiting period)	42	85	71	85	66	71	90	77
Sick leave (partial pay or waiting period)	2	2	1	–	1	–	1	–
Long-term disability insurance	24	26	21	45	63	61	63	80
Noncontributory plans	13	12	13	45	55	44	59	80
In establishments providing at least one of the health insurance plans shown below[3]	99	100	96	100	99	100	96	100
Noncontributory plans	72	83	52	88	75	90	70	98
Hospitalization insurance	99	100	96	100	99	100	99	100
Noncontributory plans	68	78	52	88	68	80	65	98
Surgical insurance	99	100	96	100	99	100	99	100
Noncontributory plans	68	78	52	88	69	80	65	98
Medical insurance	99	100	95	100	99	100	99	100
Noncontributory plans	68	78	52	88	69	80	65	98
Major medical insurance	96	100	95	100	98	100	99	100
Noncontributory plans	69	80	51	88	74	86	70	98
Dental insurance	40	47	30	64	48	61	45	83
Noncontributory plans	32	37	23	64	35	47	31	83
Health maintenance organization	2	–	4	12	1	–	2	1
Noncontributory plans	1	–	4	12	1	–	1	1
Retirement pension	78	80	73	82	89	93	86	76
Noncontributory plans	70	75	62	82	82	83	81	76

See footnotes at end of tables.

Table B-7. Health plan participation by full-time workers in Portland, Me., December 1981

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
Percent of workers								
All full-time workers	100	100	100	100	100	100	100	100
Hospitalization insurance	92	99	79	97	92	97	90	99
Noncontributory plans	67	78	49	88	65	79	61	97
Surgical insurance	92	99	79	97	92	97	90	99
Noncontributory plans	67	78	49	88	65	79	61	97
Medical insurance	91	99	78	97	91	97	89	99
Noncontributory plans	67	78	49	88	65	79	61	97
Major medical insurance	91	99	79	97	92	97	90	99
Noncontributory plans	66	79	49	88	70	84	66	97
Dental insurance	39	46	28	64	44	60	40	83
Noncontributory plans	31	37	23	84	33	46	29	83
Health maintenance organization	(1)	–	(1)	–	(1)	–	(1)	–
Noncontributory plans	–	–	–	–	–	–	–	–

See footnotes at end of tables.

Footnotes

Some of these standard footnotes may not apply to this bulletin.

[1] Standard hours reflect the workweek for which employees receive their regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates), and the earnings correspond to these weekly hours.

[2] The mean is computed for each job by totaling the earnings of all workers and dividing by the number of workers. The median designates position—half of the workers receive the same or more and half receive the same or less than the rate shown. The middle range is defined by two rates of pay; one-fourth of the workers earn the same or less than the lower of these rates and one-fourth earn the same or more than the higher rate.

[3] Earnings data relate only to workers whose sex identification was provided by the establishment.

[4] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

[5] Estimates for periods ending prior to 1976 relate to men only for skilled maintenance and unskilled plant workers. All other estimates relate to men and women.

[6] Data do not meet publication criteria or data not available.

[7] Formally established minimum regular straight-time hiring salaries that are paid for standard workweeks. Data are presented for all standard workweeks combined, and for the most common standard workweeks reported.

[8] Excludes workers in subclerical jobs such as messenger.

[9] Includes all production and related workers in establishments currently operating late shifts, and establishments whose formal provisions cover late shifts, even though the establishments were not currently operating late shifts.

[10] Less than 0.05 percent.

[11] Less than 0.5 percent.

[12] All combinations of full and half days that add to the same amount; for example, the proportion of workers receiving a total of 10 days includes those with 10 full days and no half days, 9 full days and 2 half days, 8 full days and 4 half days, and so on. Proportions then were cumulated.

[13] Includes payments other than "length of time," such as percentage of annual earnings or flat-sum payments, converted to an equivalent time basis; for example, 2 percent of annual earnings was considered as 1 week's pay. Periods of service are chosen arbitrarily and do not necessarily reflect individual provisions for progression; for example, changes in proportions at 10 years include changes between 5 and 10 years. Estimates are cumulative. Thus, the proportion eligible for at least 3 weeks' pay after 10 years includes those eligible for at least 3 weeks' pay after fewer years of service.

[14] Estimates listed after type of benefit are for all plans for which at least a part of the cost is borne by the employer. "Noncontributory plans" include only those financed entirely by the employer. Excluded are legally required plans, such as workers' disability compensation, social security, and railroad retirement.

[15] Unduplicated total of workers receiving sick leave or sickness and accident insurance shown separately. Sick leave plans are limited to those which definitely establish at least the minimum number of days' pay that each employee can expect. Informal sick leave allowances determined on an individual basis are excluded.

[16] Unduplicated total of workers eligible for coverage under an insurance plan providing hospitalization, sugical, medical, major medical, or dental benefits shown separately.

Appendix A. Scope and Method of Survey

In each of the 71 areas[1] currently surveyed, the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Small establishments—generally those with fewer than 50 employees—are excluded because they have few incumbents in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

Bureau field representatives obtain data by personal visits at 3-year intervals. In each of the two intervening years, information on employment and occupational earnings only is collected by a combination of personal visit, mail questionnaire, and telephone interview from establishments participating in the previous survey.

A sample of the establishments in the scope of the survey is selected for study prior to each personal visit survey. This sample, minus establishments which go out of business or are no longer within the industrial scope of the survey, is retained for the following two annual surveys. In most cases, establishments new to the area are not considered in the scope of the survey until the selection of a sample for a personal visit survey.

The sampling procedures involve detailed stratification of all establishments within the scope of an individual area survey by industry and number of employees. From this stratified universe a probability sample is selected, with each establishment having a predetermined chance of selection. To obtain optimum accuracy at minimum cost, a greater proportion of large than small establishments is selected. When data are combined, each establishment is weighted according to its probability of selection so that unbiased estimates are generated. For example, if one out of four establishments is selected, it is given a weight of 4 to represent itself plus three others. An alternate of the same original probability is chosen in the same industry-size classification if data are not available from the original sample member. If no suitable substitute is available, additional weight is assigned to a sample member that is similar to the missing unit.

Occupations and earnings

Occupations selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (1) Office clerical; (2) professional and technical; (3) maintenance, toolroom, and powerplant; and (4) material movement and custodial. Occupational classification is based on a uniform set of job descriptions d[illegible]ned to take account of interestablishment variation in duties within the same job. Occupations selected for study are listed and described in appendix B.

Unless otherwise indicated, the earnings data following the job titles are for all industries combined. Earnings data for some of the occupations listed and described, or for some industry divisions within the scope of the survey, are not presented in the A-series tables because either (1) data were insufficient to provide meaningful statistical results, or (2) there is possibility of disclosure of individual establishment data. Separate men's and women's earnings data are not presented when the number of workers not identified by sex is 20 percent or more of the men or women identified in an occupation. Earnings data not shown separately for industry divisions are included in data for all industries combined. Likewise, for occupations with more than one level, data are included in the overall classification when a subclassification is not shown or information to subclassify is not available.

Occupational employment and earnings data are shown for full-time workers, i.e., those hired to work a regular weekly schedule. Earnings data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Nonproduction bonuses are excluded, but cost-of-living allowances and incentive bonuses are included. Weekly hours for office clerical and professional and technical occupations refer to the standard workweek (rounded to the nearest half hour) for which employees receive regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates). Average weekly earnings for these occupations are rounded to the nearest half dollar. Most A-series tables provide distributions of workers by earnings; changes in the size of earnings intervals are indicated by heavy vertical lines.

These surveys measure the level of occupational earnings in an area at a particular time. Changes in an occupational average over time reflect, in addition to earnings changes, factors such as changes in proportions of workers employed by high- or low-wage firms, or high-wage workers advancing to better jobs and being replaced by new workers at lower rates. Such shifts in employment could decrease an occupational average even though most establishments in an area increase wages during the year. Changes in earnings of occupational groups, shown in table A-7, are better indicators of wage trends than are earnings changes for individual jobs within the groups.

Average earnings reflect composite, areawide estimates. Industries and establishments differ in pay level and job staffing, and thus contribute differently to the estimates

for each job. Pay averages may fail to reflect accurately the wage differential among jobs in individual establishments.

Average pay levels for men and women in selected occupations should not be assumed to reflect differences in pay of the sexes within individual establishments. Factors which may contribute to differences include progression within established rate ranges (only the rates paid incumbents are collected) and performance of specific duties within the general survey job descriptions. Job descriptions used to classify employees in these surveys usually are more generalized than those used in individual establishments and allow for minor differences among establishments in specific duties performed.

Occupational employment estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because occupational structures among establishments differ, estimates of occupational employment obtained from the sample of establishments studied serve only to indicate the relative importance of the jobs studied. These differences in occupational structure do not affect materially the accuracy of the earnings data.

Wage trends for selected occupational groups

Indexes in table A-7 measure wages at a given time, expressed as a percent of wages during the base period. Subtracting 100 from the index yields the percent change in wages from the base period to the date of the index. The percent increases in table A-7 relate to wage changes between the indicated dates. Annual rates of increase, where shown, reflect the amount of increase for 12 months when the time span between surveys was other than 12 months. These computations are based on the assumption that wages increased at a constant rate between surveys.

The indexes and percent increases are based on changes in average hourly earnings of men and women in establishments reporting the trend jobs in both the current and previous year (matched establishments). The data are adjusted to remove the effect on average earnings of employment shifts among establishments and turnover of establishments included in survey samples. The percent increases, however, are still affected by factors other than wage increases. Turnover may affect an establishment average for an occupation when workers are paid under plans providing a range of wage rates for individual jobs. In periods of increased hiring, for example, new employees may enter at the bottom of the range, depressing the average without a change in wage rates.

Occupations used to compute wage trends are:

Office clerical

- Secretaries
- Stenographers I
- Typists, I and II
- File clerks, I, II, and III
- Messengers
- Switchboard operators
- Order clerks, I and II
- Accounting clerks[3]
- Payroll clerks
- Key entry operators, I and II

Electronic data processing

- Computer systems analysts, I, II, and III
- Computer programmers, I, II, and III
- Computer operators, I, II, and III

Industrial nurses

- Registered industrial nurses

Skilled maintenance

- Carpenters
- Electricians
- Painters
- Machinists
- Mechanics (machinery)
- Mechanics (motor vehicle)
- Pipefitters
- Tool and die makers

Unskilled plant

- Janitors, porters, and cleaners
- Material handling laborers

Percent changes for individual areas in the program are computed as follows:

1. Average earnings are computed for each occupation for the 2 years being compared. The averages are derived from earnings in those establishments which are in the survey both years; it is assumed that employment remains unchanged.

2. Each occupation is assigned a weight based on its proportionate employment in the occupational group.

3. These weights are used to compute group averages. Each occupation's average earnings (computed in step 1) are multiplied by its weight. The products are totaled to obtain a group average.

4. The ratio of group averages for 2 consecutive years is computed by dividing the average for the current year by the average for the earlier year. The result—expressed as a percent—less 100 is the percent change.

The index is computed by adding 100 to the most recent percent increase, multiplying the total by the previous year's index number, and dividing the product by 100 to obtain the current index value.

For a more detailed description of the method used to compute these wage trends, see "Improving Area Wage Survey Indexes," *Monthly Labor Review*, January 1973, pp. 52-57.

Pay relationships in establishments

Tables A-8 through A-11 compare average pay of occupations in individual establishments. These comparisons, expressed as pay relatives (pay for one of the occupations equals 100), yield different results than comparisons of overall survey averages, such as those shown in tables A-1 through A-6. The latter reflect differences in contributions to the survey averages by establishments with disparate pay levels; the pay relative comparisons are not affected by such differences.

The methods of computing and presenting pay relatives have changed since the last survey in this area. The following procedures are now used to compute relatives in tables A-8 through A-11:

1. Establishments employing workers in both of the paired occupations were identified.
2. Pay levels (averages) for the two occupations were weighted by the combined employment of both jobs to reflect each establishment's contribution to the totals used in this comparison.
3. The weighted pay levels of the two jobs were summed separately; each total was divided by the other and the quotients multiplied by 100 to produce the two pay relatives shown for each job pairing.

Establishment practices and supplementary wage provisions

The incidence of selected establishment practices and supplementary wage provisions is studied for full-time production and related workers and office workers. Production and related workers (referred to hereafter as production workers) include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations. (Cafeteria and route workers are excluded in manufacturing industries but included in nonmanufacturing industries.) In finance and insurance, no workers are considered to be production workers. Office workers include working supervisors and all nonsupervisory workers (including lead workers and trainees) performing clerical or related office functions in such departments as accounting, advertising, purchasing, collection, credit, finance, legal, payroll, personnel, sales, industrial relations, public relations, executive, or transportation. Administrative, executive, professional, and part-time employees as well as construction workers utilized as a separate work force are excluded from both the production and office worker categories.

Minimum entrance salaries (table B-1). Minimum entrance salaries for office workers relate only to the establishments visited. Because of the optimum sampling techniques used and the probability that large establishments are more likely than small establishments to have formal entrance rates above the subclerical level, the table is more representative of policies in medium and large establishments. (The "X's" shown under specific weekly schedules indicate that no meaningful totals are applicable.)

Shift differentials–manufacturing (table B-2). Data were collected on policies of manufacturing establishments regarding pay differentials for production workers on late shifts. Establishments considered as having policies are those which (1) have provisions in writing covering the operation of late shifts, or (2) have operated late shifts at any time during the 12 months preceding a survey. When establishments have several differentials which vary by job, the differential applying to the majority of the production workers is recorded. When establishments have differentials which apply only to certain hours of work, the differential applying to the most common schedule is recorded.

For purposes of this study, a late shift is either a second (evening) shift which ends at or near midnight or a third (night) shift which starts at or near midnight.

Differentials for second and third shifts are summarized separately for (1) establishment policies (an establishment's differentials are weighted by all production workers in the establishment at the time of the survey) and (2) effective practices (an establishment's differentials are weighted by production workers employed on the specified shift at the time of the survey).

Scheduled weekly hours; paid holidays; paid vacations; and health, insurance, and pension plans. Provisions which apply to a majority of the production or office workers in an establishment are considered to apply to all production or office workers in the establishment; a practice or provision is considered nonexistent when it applies to less than a majority. Holidays, vacations, and health and insurance plans are considered applicable to employees currently eligible for the benefits. Pension plans are considered applicable to employees currently eligible for participation and also to those who will eventually become eligible.

Scheduled weekly hours and days (table B-3). Scheduled weekly hours and days refer to the number of hours and days per week which full-time first (day) shift workers are expected to work, whether paid for at straight-time or overtime rates.

Paid holidays (table B-4). Holidays are included if workers who are not required to work are paid for the time off and those required to work receive premium pay or compensatory time off. They are included only if they are granted annually on a formal basis (provided for in written form or established by custom). Holidays are included even though in a particular year they fall on a nonworkday and employees are not granted another day off. Paid personal holiday plans, typically found in the automobile and related industries, are included as paid holidays.

Data are tabulated to show the percent of workers who (1) are granted specific numbers of whole and half holidays and (2) are granted specified amounts of total holiday time (whole and half holidays are aggregated).

Paid vacations (table B-5). Establishments report their method of calculating vacation pay (time basis, percent of annual earnings, flat-sum payment, etc.) and the amount of vacation pay granted. Only basic formal plans are reported. Vacation bonuses, vacation-savings plans, and "extended" or "sabbatical" benefits beyond basic plans are excluded.

For tabulating vacation pay granted, all provisions are expressed on a time basis. Vacation pay calculated on other than a time basis is converted to its equivalent time period. Two percent of annual earnings, for example, is tabulated as 1 week's vacation pay.

Also, provisions after each specified length of service are related to all production or office workers in an establishment regardless of length of service. Vacation plans commonly provide for a larger amount of vacation pay as service lengthens. Counts of production or office workers by length of service were not obtained. The tabulations of vacation pay granted present, therefore, statistical measures of these provisions rather than proportions of workers actually receiving specific benefits.

Health, insurance, and pension plans (table B-6). Health, insurance, and pension plans include plans for which the employer pays either all or part of the cost. The benefits may be underwritten by an insurance company, paid directly by an employer or union, or provided by a health maintenance organization. This year, for the first time in this

area, provisions for health maintenance organizations (HMO's) are treated separately from insurance provisions. Workers provided the option of an insurance plan or an HMO are reported under both types of plans. A plan is included even though a majority of the employees in an establishment do not choose to participate in it because they are required to bear part of its cost (provided the choice to participate is available to a majority). Legally required plans such as social security, railroad retirement, workers' disability compensation, and temporary disability insurance[5] are excluded.

Life insurance includes formal plans providing indemnity (usually through an insurance policy) in case of death of the covered worker.

Accidental death and dismemberment insurance is limited to plans which provide benefit payments in case of death or loss of limb or sight as a direct result of an accident.

Sickness and accident insurance includes only those plans which provide that predetermined cash payments be made directly to employees who lose time from work because of illness or injury, e.g., $50 a week for up to 26 weeks of disability.

Sick leave plans are limited to formal plans[6] which provide for continuing an employee's pay during absence from work because of illness. Data collected distinguish between (1) plans which provide full pay with no waiting period, and (2) plans which either provide partial pay or require a waiting period.

Long-term disability insurance plans provide payments to totally disabled employees upon the expiration of their paid sick leave and/or sickness and accident insurance, or after a predetermined period of disability (typically 6 months). Payments are made until the end of the disability, a maximum age, or eligibility for retirement benefits. Full or partial payments are almost always reduced by social security, workers' disability compensation, and private pension benefits payable to the disabled employee.

Hospitalization, surgical, and medical insurance plans reported in these surveys provide full or partial payment for basic services rendered. Hospitalization insurance covers hospital room and board and may cover other hospital expenses. Surgical insurance covers surgeons' fees. Medical insurance covers doctors' fees for home, office, or hospital calls. Plans restricted to post-operative medical care or a doctor's care for minor ailments at a worker's place of employment are not considered to be medical insurance.

Major medical insurance coverage applies to services which go beyond the basic services covered under hospitalization, surgical, and medical insurance. Major medical insurance typically (1) requires that a "deductible" (e.g., $100) be met before benefits begin, (2) has a coinsurance feature that requires the insured to pay a portion (e.g., 20 percent) of certain expenses, and (3) has a specified dollar maximum of benefits (e.g., $10,000 a year).

Dental insurance plans provide normal dental service benefits, usually for fillings, extractions, and X-rays. Plans which provide benefits only for oral surgery or repairing accident damage are not reported.

An HMO provides comprehensive health care services to a specified group for fixed periodic payments rather than indemnification or reimbursement for medical, surgical, and hospital expenses.

Retirement pension plans provide for regular payments to the retiree for life. Included are deferred profit-sharing plans which provide the option of purchasing a lifetime annuity.

Health plan participation (table B-7). Estimates are presented on the percent of production and office workers participating in selected health insurance and HMO plans. When an establishment was unable to supply the number of plan participants, approximations (imputations) were made, where possible, by using information from other establishments offering a similar plan. Imputations were never made for more than one-third of the production or clerical workers in an industry group (all industries, manufacturing, nonmanufacturing, and transportation and utilities); when imputations were made, they were usually for considerably less than one-third of the workers. Participation rates were estimated and published if participant numbers (including imputations) were available for 90 percent or more of the production or office workers in an industry group; consequently, a published estimate may not relate to a group total.

[1] Includes 70 areas surveyed under the Bureau's regular program plus Poughkeepsie-Kingston-Newburgh, N.Y., which is surveyed under contract. In addition, the Bureau conducts more limited area studies in approximately 100 areas at the request of the Employment Standards Administration of the U.S. Department of Labor.

[2] A revised 4-level job description for accounting clerks, being introduced in this survey, is not comparable to the previous 2-level description. Earnings of workers that could be compared to the previous overall level were used in wage trend computations.

[5] Temporary disability insurance which provides benefits to covered workers disabled by injury or illness which is not work-connected is mandatory under State laws in California, New Jersey, New York, and Rhode Island. Establishment plans which meet only the legal requirements are excluded from these data, but those under which (1) employers contribute more than is legally required or (2) benefits exceed those specified in the State law are included. In Rhode Island, benefits are paid out of a State fund to which only employees contribute. In each of the other three States, benefits are paid either from a State fund or through a private plan.

State fund financing: In California, only employees contribute to the State fund; in New Jersey, employees and employers contribute; in New York, employees contribute up to a specified maximum and employers pay the difference between the employees' share and the total contribution required.

Private plan financing: In California and New Jersey, employees cannot be required to contribute more than they would if they were covered by the State fund; in New York, employees can agree to contribute more if the State rules that the additional contribution is commensurate with the benefit provided.

Federal legislation (Railroad Unemployment Insurance Act) provides temporary disability insurance benefits to railroad workers for illness or injury, whether work-connected or not. The legislation requires that employers bear the entire cost of the insurance.

[6] An establishment is considered as having a formal plan if it specifies at least the minimum number of days of sick leave available to each employee. Such a plan need not be written, but informal sick leave allowances determined on an individual basis are excluded.

Appendix table 1. Establishments and workers within scope of survey and number studied in Portland, Me.,[1] December 1981

Industry division[2]	Minimum employment in establishments in scope of survey	Number of establishments		Workers in establishments				
				Within scope of survey				Studied[3]
		Within scope of survey[3]	Studied	Total[4]		Full-time production and related workers	Full-time office workers	
				Number	Percent			
All divisions	–	196	89	35,640	100	19,855	4,677	25,969
Manufacturing	50	65	31	16,192	45	12,431	1,063	12,832
Nonmanufacturing	–	131	58	19,448	55	7,224	3,614	13,137
Transportation, communication, and other public utilities[5]	50	18	13	3,355	9	1,815	590	3,042
Wholesale trade	50	24	9	2,411	7	(*)	(*)	1,551
Retail trade	50	51	18	8,345	23	(*)	(*)	5,109
Finance, insurance, and real estate	50	19	9	3,222	9	(*)	(*)	2,312
Services[6]	50	21	9	2,115	6	(*)	(*)	1,123

[1] The Portland, Me. Standard Metropolitan Statistical Area, as defined by the Office of Management and Budget through February 1974, consists of the cities of Portland, South Portland, and Westbrook; and the towns of Cape Elizabeth, Cumberland, Falmouth, Freeport, Gorham, Scarborough, Windham, and Yarmouth in Cumberland County; and Saco City, and Old Orchard Beach town in York County. The "workers within scope of survey" estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

[2] The 1972 edition of the *Standard Industrial Classification Manual* was used to classify establishments by industry division. All government operations are excluded from the scope of the survey.

[3] Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of nonmanufacturing companies are considered as one establishment when located within the same industry division.

[4] Includes executive, professional, part-time, seasonal, and other workers excluded from the separate production and office categories.

[5] Abbreviated to "transportation and utilities" in the A- and B-series tables. Formerly referred to as "public utilities". Taxicabs and services incidental to water transportation are excluded.

[6] Separate data for this division are not presented in the A- and B-series tables, but the division is represented in the 'all industries' and "nonmanufacturing" estimates.

[7] Hotels and motels; laundries and other personal services; business services; automobile repair, rental, and parking; motion pictures; nonprofit membership organizations (excluding religious and charitable organizations); and engineering and architectural services.

Appendix table 2. Percent of workers covered by labor-management agreements, Portland, Me., December 1981

Industry division	*Production and related workers*	*Office workers*
All industries	29	12
Manufacturing	34	6
Nonmanufacturing	19	14
Transportation and utilities	74	86

NOTE: An establishment is considered to have a contract covering all production or office workers if a majority of such workers is covered by a labor-management agreement. Therefore, all other production or office workers are employed in establishments that either do not have labor-management contracts in effect, or have contracts that apply to fewer than half of their production or office workers. Estimates are not necessarily representative of the extent to which all workers in the area may be covered by the provisions of labor-management agreements, because small establishments are excluded and the industrial scope of the survey is limited.

Appendix table 3. Industrial composition in manufacturing, Portland, Me., December 1981

(Percent of all manufacturing workers)

Leather and leather products	18
Footwear, except rubber	16
Fabricated metal products	16
Ordnance and accessories, nec	7
Fabricated structural metal products	6
Paper and allied products	14
Paper mills, except building paper	13
Food and kindred products	14
Machinery, except electrical	10
Office and computing machines	5
Electric and electronic equipment	10
Electronic components and accessories	7
Transportation equipment	5

NOTE: This information is based on estimates of total employment derived from universe materials compiled before actual survey.

Appendix B. Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field representatives in classifying into appropriate occupations workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This permits grouping occupational wage rates representing comparable job content. Because of this emphasis on interestablishment and interarea comparability of occupational content, the Bureau's job descriptions may differ significantly from those in use in individual establishments or those prepared for other purposes. In applying these job descriptions, the Bureau's field representatives are instructed to exclude working supervisors; apprentices; and part-time, temporary, and probationary workers. Handicapped workers whose earnings are reduced because of their handicap are also excluded. Learners, beginners, and trainees, unless specifically included in the job description, are excluded.

Listed below are several occupations for which revised descriptions or titles are being introduced in this survey:

Stenographer	Drafter
Typist	Stationary engineer
Accounting clerk	Boiler tender

The Bureau has discontinued collecting data for tabulating-machine operator, bookkeeping-machine operator, and machine biller.

Office

SECRETARY

Assigned as a personal secretary, normally to one individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor. Works fairly independently receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and understanding of the organization, programs, and procedures related to the work of the supervisor.

Exclusions. Not all positions that are titled "secretary" possess the above characteristics. Examples of positions which are excluded from the definition are as follows:

a. Positions which do not meet the "personal" secretary concept described above;

b. Stenographers not fully trained in secretarial-type duties;

c. Stenographers serving as office assistants to a group of professional, technical, or managerial persons;

d. Assistant-type positions which entail more difficult or more responsible technical, administrative, or supervisory duties which are not typical of secretarial work, e.g., Administrative Assistant, or Executive Assistant;

e. Positions which do not fit any of the situations listed in the sections below titled "Level of Supervisor," e.g., secretary to the president of a company that employs, in all, over 5,000 persons;

f. Trainees.

Classification by level. Secretary jobs which meet the required characteristics are matched at one of five levels according to (a) the level of the secretary's supervisor within the company's organizational structure and, (b) the level of the secretary's responsibility. The tabulation following the explanations of these two factors indicates the level of the secretary for each combination of the factors.

Level of Secretary's Supervisor (LS)

LS-1

a. Secretary to the supervisor or head of a small organizational unit (e.g., fewer than about 25 or 30 persons); or

b. Secretary to a nonsupervisory staff specialist, professional employee, administrative officer or assistant, skilled technician or expert. (NOTE: Many companies assign stenographers, rather than secretaries as described above, to this level of supervisory or nonsupervisory worker.)

LS-2

a. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for LS-3, but whose organizational unit normally numbers at least several dozen employees and is usually divided into organizational segments which are often, in turn, further subdivided. In some companies, this level includes a wide range of organizational echelons; in others, only one or two; or
b. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, fewer than 5,000 persons.

LS-3

a. Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
b. Secretary to a corporate officer (other than chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
c. Secretary to the head (immediately below the officer level) over either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational segment (e.g., a regional headquarters; a major division) of a company that employs, in all, over 5,000 but fewer than 25,000 employees; or
d. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or
e. Secretary to the head of a large and important organizational segment (e.g., a middle management supervisor of an organizational segment often involving as many as several hundred persons) of a company that employs, in all, over 25,000 persons.

LS-4

a. Secretary to the chairman of the board or president of a company that employs, in all, over 100 but fewer than 5,000 persons; or
b. Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or
c. Secretary to the head, immediately below the corporate officer level, of a major segment or subsidiary of a company that employs, in all, over 25,000 persons.

NOTE: The term "corporate officer" used in the above LS definition refers to those officials who have a significant corporatewide policymaking role with regard to major company activities. The title "vice president," though normally indicative of this role, does not in all cases identify such positions. Vice presidents whose primary responsibility is to act personally on individual cases or transactions (e.g., approve or deny individual loan or credit actions; administer individual trust accounts; directly supervise a clerical staff) are not considered to be "corporate officers" for purposes of applying the definition.

Level of Secretary's Responsibility (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at LR-1 or LR-2 described below according to their level of responsibility.

LR-1

Performs varied secretarial duties including or comparable to most of the following:

a. Answers telephones, greets personal callers, and opens incoming mail.
b. Answers telephone requests which have standard answers. May reply to requests by sending a form letter.
c. Reviews correspondence, memoranda, and reports prepared by others for the supervisor's signature to ensure procedural and typographical accuracy.
d. Maintains supervisor's calendar and makes appointments as instructed.
e. Types, takes and transcribes dictation, and files.

LR-2

Performs duties described under LR-1 and, *in addition* performs tasks requiring greater judgment, initiative, and knowledge of office functions including or comparable to most of the following:

a. Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
b. Answers requests which require a detailed knowledge of office procedures or collection of information from files or other offices. *May* sign routine correspondence in own or supervisor's name.
c. Compiles or assists in compiling periodic reports on the basis of general instructions.
d. Schedules tentative appointments without prior clearance. Assembles necessary background material for scheduled meetings. Makes arrangements for meetings and conferences.
e. Explains supervisor's requirements to other employees in supervisor's unit. (Also types, takes dictation, and files.)

The following tabulation shows the level of the secretary for each LS and LR combination:

	LR-1	*LR-2*
LS-1	I	II
LS-2	II	III
LS-3	III	IV
LS-4	IV	V

STENOGRAPHER

Primary duty is to take dictation using shorthand, and to transcribe the dictation. May also type from written copy. May operate from a stenographic pool. May occasionally transcribe from voice recordings. (If primary duty is transcribing from recordings, see Transcribing-machine typist.)

NOTE: This job is distinguished from that of a secretary in that a secretary normally works as the principal office assistant performing more responsible and discretionary tasks.

Stenographer I.

Takes and transcribes dictation under close supervision and detailed instructions. May maintain files, keep simple records, or perform other relatively routine clerical tasks.

Stenographer II.

Takes and transcribes dictation determining the most appropriate format. Performs stenographic duties requiring significantly greater independence and responsibility than Stenographer I. Supervisor typically provides general instructions. Work requires a thorough working knowledge of general business and office procedures and of the specific business operations, organizations, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining follow up files; assembling material for reports, memoranda, and letters; composing simple letters from general instructions; reading and routing incoming mail; answering routine questions, etc.

TRANSCRIBING-MACHINE TYPIST

Primary duty is to type copy of voice recorded dictation which does *not* involve varied technical or specialized vocabulary such as that used in legal briefs or reports on scientific research. May also type from written copy. May maintain files, keep simple records, or perform other relatively routine clerical tasks. (See Stenographer definition for workers involved with shorthand dictation.)

TYPIST

Uses a manual, electric, or automatic typewriter to type various materials. Included are automatic typewriters that are used only to record text and update and reproduce previously typed items from magnetic cards or tape. May include typing of stencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping simple records, filing records and reports, or sorting and distributing incoming mail.

Excluded from this definition is work that involves:

a. Typing directly from spoken material that has been recorded on disks, cylinders, belts, tapes, or other similar media;
b. The use of varitype machines, composing equipment, or automatic equipment in preparing material for printing; and
c. Familiarity with specialized terminology in various keyboard commands to manipulate or edit the recorded text to accomplish revisions, or to perform tasks such as extracting and listing items from the text, or transmitting text to other terminals, or using "sort" commands to have the machine reorder material. Typically requires the use of automatic equipment which may be either computer linked or have a programmable memory so that material can be organized in regularly used formats or preformed paragraphs which can then be coded and stored for future use in letters or documents.

Typist I

Performs *one or more of the following:* Copy typing from rough or clear drafts; or routine typing of forms, insurance policies, etc.; or setting up simple standard tabulations; or copying more complex tables already set up and spaced properly.

Typist II

Performs *one or more of the following:* Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

FILE CLERK

Files, classifies, and retrieves material in an established filing system. May perform clerical and manual tasks required to maintain files. Positions are classified into levels on the basis of the following definitions:

File Clerk I

Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; and may fill out withdrawal charge. May perform simple clerical and manual tasks required to maintain and service files.

File Clerk II

Sorts, codes, and files unclassified material by simple (subject matter) headings or partly classified material by finer subheadings. Prepares simple related index and cross-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical tasks required to maintain and service files.

File Clerk III

Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

MESSENGER

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening and distributing mail, and other minor clerical work. Exclude positions that require operation of a motor vehicle as a significant duty.

SWITCHBOARD OPERATOR

Operates a telephone switchboard or console used with a private branch exchange (PBX) system to relay incoming, outgoing, and intrasystem calls. May provide information to callers, record and transmit messages, keep record of calls placed and toll charges. Besides operating a telephone switchboard or console, *may* also type or perform routine clerical work (typing or routine clerical work may occupy the major portion of the worker's time, and is usually performed while at the switchboard or console). Chief or lead operators in establishments employing more than one operator are excluded. For an operator who also acts as a receptionist, see Switchboard operator-receptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST

At a single-position telephone switchboard or console, acts both as an operator—see Switchboard operator—and as a receptionist. Receptionist's work involves such duties as greeting visitors; determining nature of visitor's business and providing appropriate information; referring visitor to appropriate person in the organization or contacting that person by telephone and arranging an appointment; keeping a log of visitors.

ORDER CLERK

Receives written or verbal customers' purchase orders for material or merchandise from customers or sales people. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and adequacy of information recorded; ascertaining credit rating of customer; furnishing customer with acknowledgement of receipt of order; following up to see that order is delivered by the specified date or to let customer know of a delay in delivery; maintaining order file; checking shipping invoice against original order. *Exclude workers paid on a commission basis or whose duties include any of the following:* Receiving orders for services rather than for material or merchandise; providing customers with consultative advice using knowledge gained from engineering or extensive technical training; emphasizing selling skills; handling material or merchandise as an integral part of the job.

Positions are classified into levels according to the following definitions:

Order Clerk I

Handles orders involving items which have readily identified uses and applications. May refer to a catalog, manufacturer's manual, or similar document to insure that proper item is supplied or to verify price of ordered item.

Order Clerk II

Handles orders that involve making judgments such as choosing which specific product or material from the establishment's product lines will satisfy the customer's needs, or determining the price to be quoted when pricing involves more than merely referring to a price list or making some simple mathematical calculations.

ACCOUNTING CLERK

Performs one or more accounting tasks such as posting to registers and ledgers; balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Levels I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording of transactions and accounting information. Levels III and IV *require* a knowledge and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some jobs at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

Accounting Clerk I

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

Accounting Clerk II

Performs one or more routine accounting clerical operations, such as: Examining, verifying, and correcting accounting transactions to ensure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

Accounting Clerk III

Uses a knowledge of double entry bookkeeping in performing one or more of the following: Posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

Accounting Clerk IV

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: Reviews invoices and statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for

application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system.

NOTE: Excluded from level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

PAYROLL CLERK

Performs the clerical tasks necessary to process payrolls and to maintain payroll records. Work involves *most of the following*: Processing workers' time or production records; adjusting workers' records for changes in wage rates, supplementary benefits, or tax deductions; editing payroll listings against source records; tracing and correcting errors in listings; and assisting in preparation of periodic summary payroll reports. In a nonautomated payroll system, computes wages. Work may require a practical knowledge of governmental regulations, company payroll policy, or the computer system for processing payrolls.

KEY ENTRY OPERATOR

Operates keyboard-controlled data entry device such as keypunch machine or key-operated magnetic tape or disk encoder to transcribe data into a form suitable for computer processing. Work requires skill in operating an alphanumeric keyboard and an understanding of transcribing procedures and relevant data entry equipment.

Positions are classified into levels on the basis of the following definitions:

Key Entry Operator I

Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

Key Entry Operator II

Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for level I.

NOTE: Excluded are operators above level II using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

Professional and Technical

COMPUTER SYSTEMS ANALYST, BUSINESS

Analyzes business problems to formulate procedures for solving them by use of electronic data processing equipment. Develops a complete description of all specifications needed to enable programmers to prepare required digital computer programs. Work involves *most of the following*: Analyzes subject-matter operations to be automated and identifies conditions and criteria required to achieve satisfactory results; specifies number and types of records, files, and documents to be used; outlines actions to be performed by personnel and computers in sufficient detail for presentation to management and for programming (typically this involves preparation of work and data flow charts); coordinates the development of test problems and participates in trial runs of new and revised systems; and recommends equipment changes to obtain more effective overall operations. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.)

Does not include employees primarily responsible for the management or supervision of other electronic data processing employees, or systems analysts primarily concerned with scientific or engineering problems.

For wage study purposes, systems analysts are classified as follows:

Computer Systems Analyst I

Works under immediate supervision, carrying out analyses as assigned, usually of a single activity. Assignments are designed to develop and expand practical experience in the application of procedures and skills required for systems analysis work. For example, may assist a higher level systems analyst by preparing the detailed specifications required by programmers from information developed by the higher level analyst.

Computer Systems Analyst II

Works independently or under only general direction on problems that are relatively uncomplicated to analyze, plan, program, and operate. Problems are of limited complexity because sources of input data are homogeneous and the output data are closely related. (For example, develops systems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail establishment, or maintaining inventory accounts in a manufacturing or wholesale establishment.) Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of the data processing systems to be applied. *OR*

Works on a segment of a complex data processing scheme or system, as described for level III. Works independently on routine assignments and receives instruction and guidance on complex assignments. Work is reviewed for accuracy of judgment, compliance with instructions, and to insure proper alignment with the overall system.

Computer Systems Analyst III

Works independently or under only general direction on complex problems involving all phases of systems analysis. Problems are complex because of diverse sources of input data and multiple-use requirements of output data. (For example, develops an integrated production scheduling, inventory control, cost analysis, and sales analysis record in which every item of each type is automatically processed through the full system of records and appropriate follow-up actions are initiated by the computer.)

Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of new or revised systems of data processing operations. Makes recommendations, if needed, for approval of major systems installations or changes and for obtaining equipment.

May provide functional direction to lower level systems analysts who are assigned to assist.

COMPUTER PROGRAMMER, BUSINESS

Converts statements of business problems, typically prepared by a systems analyst, into a sequence of detailed instructions which are required to solve the problems by automatic data processing equipment. Working from charts or diagrams, the programmer develops the precise instructions which, when entered into the computer system in coded language, cause the manipulation of data to achieve desired results. Work involves *most of the following*: Applies knowledge of computer capabilities, mathematics, logic employed by computers, and particular subject matter involved to analyze charts and diagrams of the problem to be programmed; develops sequence of program steps; writes detailed flow charts to show order in which data will be processed; converts these charts to coded instructions for machine to follow; tests and corrects programs; prepares instructions for operating personnel during production run; analyzes, reviews, and alters programs to increase operating efficiency or adapt to new requirements; maintains records of program development and revisions. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.)

Does not include employees primarily responsible for the management or supervision of other electronic data processing employees, or programmers primarily concerned with scientific and/or engineering problems.

For wage study purposes, programmers are classified as follows:

Computer Programmer I

Makes practical applications of programming practices and concepts usually learned in formal training courses. Assignments are designed to develop competence in the application of standard procedures to routine problems. Receives close supervision on new aspects of assignments; and work is reviewed to verify its accuracy and conformance with required procedures.

Computer Programmer II

Works independently or under only general direction on relatively simple programs, or on simple segments of complex programs. Programs (or segments) usually process information to produce data in two or three varied sequences or formats. Reports and listings are produced by refining, adapting, arraying, or making minor additions to or deletions from input data which are readily available. While numerous records may be processed, the data have been refined in prior actions so that the accuracy and sequencing of data can be tested by using a few routine checks. Typically, the program deals with routine recordkeeping operations. *OR*

Works on complex programs (as described for level III) under close direction of a higher level programmer or supervisor. May assist higher level programmer by independently performing less difficult tasks assigned, and performing more difficult tasks under fairly close direction.

May guide or instruct lower level programmers.

Computer Programmer III

Works independently or under only general direction on complex problems which require competence in all phases of programming concepts and practices. Working from diagrams and charts which identify the nature of desired results, major processing steps to be accomplished, and the relationships between various steps of the problem solving routine; plans the full range of programming actions needed to efficiently utilize the computer system in achieving desired end products.

At this level, programming is difficult because computer equipment must be organized to produce several interrelated but diverse products from numerous and diverse data elements. A wide variety and extensive number of internal processing actions must occur. This requires such actions as development of common operations which can be reused, establishment of linkage points between operations, adjustments to data when program requirements exceed computer storage capacity, and substantial manipulation and resequencing of data elements to form a highly integrated program.

May provide functional direction to lower level programmers who are assigned to assist.

COMPUTER OPERATOR

In accordance with operating instructions, monitors and operates the control console of a digital computer to process data. Executes runs by either serial processing (processes one program at a time) or multiprocessing (processes two or more programs simultaneously). The following duties characterize the work of a computer operator:

a. Studies operating instructions to determine equipment setup needed.
b. Loads equipment with required items (tapes, cards, disks, paper, etc.).
c. Switches necessary auxiliary equipment into system.
d. Starts and operates computer.
e. Responds to operating and computer output instructions.
f. Reviews error messages and makes corrections during operation *or* refers problems.
g. Maintains operating record.

May test-run new or modified programs. May assist in modifying systems or programs. The scope of this definition includes trainees working to become fully qualified computer operators, fully qualified computer operator, and lead operators providing technical assistance to lower level operators. It excludes workers who monitor and operate remote terminals.

For wage study purposes, computer operators are classified as follows:

Computer Operator I

Work assignments are limited to established production runs (i.e., programs which present few operating problems). Assignments may consist primarily of on-the-job training (sometimes augmented by classroom instruction). When learning to run programs, the supervisor or a higher level operator provides detailed written or oral guidance to the operator before and during the run. After the operator has gained experience with a program, however, the operator works fairly independently in applying standard operating or corrective procedures in responding to computer output instructions or error conditions, but refers problems to a higher level operator or the supervisor when standard procedures fail.

Computer Operator II

In addition to established production runs, work assignments include runs involving new programs, applications, and procedures (i.e., situations which require the operator to adapt to a variety of problems). At this level, the operator has the training and experience to work fairly independently in carrying out most assignments. Assignments may require the operator to select from a variety of standard setup and operating procedures. In responding to computer output instructions or error conditions, applies standard operating or corrective procedures, but may deviate from standard procedures when standard procedures fail if deviation does not materially alter the computer unit's production plans. Refers the problem or aborts the program when procedures applied do not provide a solution. May guide lower level operators.

Computer Operator III

In addition to work assignments described for Computer operator II (see above) the work of Computer operator III involves at least one of the following:

a. Deviates from standard procedures to avoid the loss of information or to conserve computer time even though the procedures applied materially alter the computer unit's production plans.
b. Tests new programs, applications, and procedures.
c. Advises programmers and subject-matter experts on setup techniques.
d. Assists in (1) maintaining, modifying, and developing operating systems or programs; (2) developing operating instructions and techniques to cover problem situations; and/or (3) switching to emergency backup procedures (such assistance requires a working knowledge of program language, computer features, and software systems).

An operator at this level typically guides lower level operators.

PERIPHERAL EQUIPMENT OPERATOR

Operates peripheral equipment which directly supports digital computer operations. Such equipment is uniquely and specifically designed for computer applications, but need not be physically or electronically connected to a computer. Printers, plotters, card read/punches, tape readers, tape units or drives, disk units or drives, and data display units are examples of such equipment.

The following duties characterize the work of a peripheral equipment operator:

a. Loading printers and plotters with correct paper; adjusting controls for forms, thickness, tension, printing density, and location; and unloading hard copy.
b. Labeling tape reels, disks, or card decks.
c. Checking labels and mounting and dismounting designated tape reels or disks on specified units or drives.
d. Setting controls which regulate operation of the equipment.
e. Observing panel lights for warnings and error indications and taking appropriate action.
f. Examining tapes, cards, or other material for creases, tears, or other defects which could cause processing problems.

This classification excludes workers (1) who monitor and operate a control console (see Computer operator) or a remote terminal, or (2) whose duties are limited to operating decollaters, bursters, separators, or similar equipment.

COMPUTER DATA LIBRARIAN

Maintains library of media (tapes, disks, cards, cassettes) used for automatic data processing applications. The following or similar duties characterize the work of a computer data librarian: Classifying, cataloging, and storing media in accordance with a standardized system; upon proper requests, releasing media for processing; maintaining records of releases and returns; inspecting returned media for damage or excessive wear to determine whether or not they need replacing. May perform minor repairs to damaged tapes.

DRAFTER

Performs drafting work requiring knowledge and skill in drafting methods, procedures, and techniques. Prepares drawings of structures, mechanical and electrical equipment, piping and duct systems and other similar equipment, systems, and assemblies. Uses recognized systems of symbols, legends, shadings, and lines having specific meanings in drawings. Drawings are used to communicate engineering ideas, designs, and information in support of engineering functions.

The following are excluded when they constitute the primary purpose of the job:

a. Design work requiring the technical knowledge, skill, and ability to conceive or originate designs;
b. Illustrating work requiring artistic ability;
c. Work involving the preparation of charts, diagrams, room arrangements, floor plans, etc.;
d. Cartographic work involving the preparation of maps or plats and related materials, and drawings of geological structures; and
e. Supervisory work involving the management of a drafting program or the supervision of drafters.

Positions are classified into levels on the basis of the following definitions.

Drafter I

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is spot-checked during progress and reviewed upon completion.

NOTE: Exclude drafters performing elementary tasks while receiving training in the most basic drafting methods.

Drafter II

Prepares drawings of simple, easily visualized parts of equipment from sketches or marked-up prints. Selects appropriate templates and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy.

Drafter III

Prepares various drawings of parts and assemblies, including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Work requires use of most of the conventional drafting techniques and a working knowledge of the terms and procedures of the industry. Familiar or recurring work is assigned in general terms, unfamiliar assignments include information on methods, procedures, sources of information, and precedents to be followed. Simple revisions to existing drawings may be assigned with a verbal explanation of the desired results; more complex revisions are produced from sketches which clearly depict the desired product.

Drafter IV

Prepares complete sets of complex drawings which include multiple views, detail drawings, and assembly drawings. Drawings include complex design features that require considerable drafting skill to visualize and portray. Assignments regularly require the use of mathematical formulas to compute weights, load capacities, dimensions, quantities of materials, etc. Working from sketches and verbal information supplied by an engineer or designer, determines the most appropriate views, detail drawings, and supplementary information needed to complete assignments. Selects required information from precedents, manufacturers' catalogs, and technical guides. Independently resolves most of the problems encountered. Supervisor or designer may suggest methods of approach or provide advice on unusually difficult problems.

NOTE: Exclude drafters performing work of similar difficulty to that described at this level but who provide support for a variety of organizations which have widely differing functions or requirements.

Drafter V

Works closely with design originators, preparing drawings of unusual, complex or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawings produced. Exercises independent judgment in selecting and interpreting data based on a knowledge of the design intent. Although working primarily as a drafter, may occasionally perform engineering design work in interpreting general designs prepared by others or in completing missing design details. May provide advice and guidance to lower level drafters or serve as coordinator and planner for large and complex drafting projects.

ELECTRONICS TECHNICIAN

Works on various types of electronic equipment and related devices by performing one or a combination of the following: Installing, maintaining, repairing, overhauling, troubleshooting, modifying, constructing, and testing. Work requires practical application of technical knowledge of electronics principles, ability to determine malfunctions, and skill to put equipment in required operating condition.

The equipment—consisting of either many different kinds of circuits or multiple repetition of the same kind of circuit—includes, but is not limited to, the following: (a) Electronic transmitting and receiving equipment (e.g., radar, radio, television, telephone, sonar, navigational aids), (b) digital and analog computers, and (c) industrial and medical measuring and controlling equipment.

This classification excludes repairers of such standard electronic equipment as common office machines and household radio and television sets; production assemblers and testers; workers whose primary duty is servicing electronic test instruments; technicians who have administrative or supervisory responsibility; and drafters, designers, and professional engineers.

Positions are classified into levels on the basis of the following definitions:

Electronics Technician I

Applies working technical knowledge to perform simple or routine tasks in working on electronic equipment, following detailed instructions which cover virtually all procedures. Work typically involves such tasks as: Assisting higher level technicians by performing such activities as repiacing components, wiring circuits, and taking test readings; repairing simple electronic equipment; and using tools and common test instruments (e.g., multimeters, audio signal generators, tube testers, oscilloscopes). Is not required to be familiar with the interrelationships of circuits. This knowledge, however, may be acquired through assignments designed to increase competence (including classroom training) so that worker can advance to higher level technician.

Receives technical guidance, as required, from supervisor or higher level technician. Work is typically spot-checked, but is given detailed review when new or advanced assignments are involved.

Electronics Technician II

Applies comprehensive technical knowledge to solve complex problems (i.e., those that typically *can* be solved solely by properly interpreting manufacturers' manuals or similar documents) in working on electronic equipment. Work involves: A familiarity with the interrelationships of circuits; and judgment in determining work sequence and in selecting tools and testing instruments, usually less complex than those used by the level III technician.

Receives technical guidance, as required, from supervisor or higher level technician, and work is reviewed for specific compliance with accepted practices and work assignments. May provide technical guidance to lower level technicians.

Electronics Technician III

Applies advanced technical knowledge to solve unusually complex problems (i.e., those that typically *cannot* be solved solely by reference to manufacturers' manuals or similar documents) in working on electronic equipment. Examples of such problems include location and density of circuitry, electromagnetic radiation, isolating malfunctions, and frequent engineering changes. Work involves: A detailed understanding of the interrelationships of circuits; exercising independent judgment in performing such tasks as making circuit analyses, calculating wave forms, tracing relationships in signal flow; and regularly using complex test instruments (e.g., dual trace oscilloscopes, Q-meters, deviation meters, pulse generators).

Work may be reviewed by supervisor (frequently an engineer or designer) for general compliance with accepted practices. May provide technical guidance to lower level technicians.

REGISTERED INDUSTRIAL NURSE

A registered nurse gives nursing service under general medical direction to ill or injured employees or other persons who become ill or suffer an accident on the premises

of a factory or other establishment. Duties involve *a combination of the following*: Giving first aid to the ill or injured; attending to subsequent dressing of employees' injuries; keeping records of patients treated; preparing accident reports for compensation or other purposes; assisting in physical examinations and health evaluations of applicants and employees; and planning and carrying out programs involving health education, accident prevention, evaluation of plant environment, or other activities affecting the health, welfare, and safety of all personnel. Nursing supervisors or head nurses in establishments employing more than one nurse are excluded.

Maintenance, Toolroom, and Powerplant

MAINTENANCE CARPENTER

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, casings, and trim made of wood in an establishment. Work involves *most of the following*: Planning and laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE ELECTRICIAN

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy in an establishment. Work involves *most of the following*: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; and using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE PAINTER

Paints and redecorates walls, woodwork, and fixtures of an establishment. Work *involves the following*: Knowledge of surface peculiarities and types of paint required for different applications; preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices; and applying paint with spray gun or brush. May mix colors, oils, white lead, and other paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MACHINIST

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment operated in an establishment. Work involves *most of the following*: Interpreting written instructions and specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining; knowledge of the working properties of the common metals; selecting standard materials, parts, and equipment required for this work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MECHANIC (MACHINERY)

Repairs machinery or mechanical equipment of an establishment. Work involves *most of the following*: Examining machines and mechanical equipment to diagnose source of trouble; dismantling or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items obtained from stock; ordering the production of a replacement part by a machine shop or sending the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a machinery maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose *primary duties* involve setting up or adjusting machines.

MAINTENANCE MECHANIC (MOTOR VEHICLE)

Repairs automobiles, buses, motortrucks, and tractors of an establishment. Work involves *most of the following*: Examining automotive equipment to diagnose source of trouble; disassembling equipment and performing repairs that involve the use of such handtools as wrenches, gauges, drills, or specialized equipment in disassembling or fitting parts; replacing broken or defective parts from stock; grinding and adjusting valves; reassembling and installing the various assemblies in the vehicle and making necessary adjustments; and aligning wheels, adjusting brakes and lights, or tightening body bolts. In general, the work of the motor vehicle maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

This classification does not include mechanics who repair customers' vehicles in automobile repair shops.

MAINTENANCE PIPEFITTER

Installs or repairs water, steam, gas, or other types of pipe and pipefittings in an establishment. Work involves *most of the following*: Laying out work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machines; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent

training and experience. *Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.*

MAINTENANCE SHEET-METAL WORKER

Fabricates, installs, and maintains in good repair the sheet-metal equipment and fixtures (such as machine guards, grease pans, shelves, lockers, tanks, ventilators, chutes, ducts, metal roofing) of an establishment. Work involves *most of the following:* Planning and laying out all types of sheet-metal maintenance work from blueprints, models, or other specifications; setting up and operating all available types of sheet-metal working machines; using a variety of handtools in cutting, bending, forming, shaping, fitting, and assembling; and installing sheet-metal articles as required. In general, the work of the maintenance sheet-metal worker requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MILLWRIGHT

Installs new machines or heavy equipment, and dismantles and installs machines or heavy equipment when changes in the plant layout are required. Work involves *most of the following*: Planning and laying out work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; aligning and balancing equipment; selecting standard tools, equipment, and parts to be used; and installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, the millwright's work normally requires a rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE TRADES HELPER

Assists one or more workers in the skilled maintenance trades by performing specific or general duties of lesser skill, such as keeping a worker supplied with materials and tools; cleaning working area, machine, and equipment; assisting journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade: In some trades the helper is confined to supplying, lifting, and holding materials and tools, and cleaning working areas; and in others he is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis.

MACHINE-TOOL OPERATOR (TOOLROOM)

Specializes in operating one or more than one type of machine tool (e.g., jig borer, grinding machine, engine lathe, milling machine) to machine metal for use in making or maintaining jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves*: Planning and performing difficult machining operations which require complicated setups or a high degree of accuracy; setting up machine tool or tools (e.g., install cutting tools and adjust guides, stops, working tables, and other controls to handle the size of stock to be machined; determine proper feeds, speeds, tooling, and operation sequence or select those prescribed in drawings, blueprints, or layouts); using a variety of precision measuring instruments; making necessary adjustments during machining operation to achieve requisite dimensions to very close tolerances. May be required to select proper coolants and cutting and lubricating oils, to recognize when tools need dressing, and to dress tools. In general, the work of a machine-tool operator (toolroom) at the skill level called for in this classification requires extensive knowledge of machine-shop and toolroom practice usually acquired through considerable on-the-job training and experience.

For cross-industry wage study purposes, this classification does *not* include machine-tool operators (toolroom) employed in tool and die jobbing shops.

TOOL AND DIE MAKER

Constructs and repairs jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves*: Planning and laying out work according to models, blueprints, drawings, or other written or oral specifications; understanding the working properties of common metals and alloys; selecting appropriate materials, tools, and processes required to complete task; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

For cross-industry wage study purposes, this classification does *not* include tool and die makers who (1) are employed in tool and die jobbing shops or (2) produce forging dies (die sinkers).

STATIONARY ENGINEER

Operates and maintains one or more systems which provide an establishment with such services as heat, air-conditioning (cool, humidify, dehumidify, filter, and circulate air), refrigeration, steam or high-temperature water, or electricity. Duties involve: Observing and interpreting readings on gauges, meters, and charts which register various aspects of the system's operation; adjusting controls to insure safe and efficient operation of the system and to meet demands for the service provided; recording in logs various aspects of the system's operation; keeping the engines, machinery, and equipment of the system in good working order. May direct and coordinate activities of other workers (not stationary engineers) in performing tasks directly related to operating and maintaining the system or systems.

The classification excludes head or chief engineers in establishments employing more than one engineer; workers required to be skilled in the repair of electronic control equipment; and workers in establishments producing electricity, steam, or heated or cooled air primarily for sale.

BOILER TENDER

Tends one or more boilers to produce steam or high-temperature water for use in an establishment. Fires boiler. Observes and interprets readings on gauges, meters, and charts which register various aspects of boiler operation. Adjusts controls to insure safe and efficient boiler operation and to meet demands for steam or high-temperature water. May also do one or more of the following: Maintain a log in which various aspects of boiler operation are recorded; clean, oil, make minor repairs or assist in

repairs to boilerroom equipment; and, following prescribed methods, treat boiler water with chemicals and analyze boiler water for such things as acidity, causticity, and alkalinity.

The classification excludes workers in establishments producing electricity, steam, or heated or cooled air primarily for sale.

Material Movement and Custodial

TRUCKDRIVER

Drives a truck within a city or industrial area to transport materials, merchandise, equipment, or workers between various types of establishments such as: Manufacturing plants, freight depots, warehouses, wholesale and retail establishments, or between retail establishments and customers' houses or places of business. May also load or unload truck with or without helpers, make minor mechanical repairs, and keep truck in good working order. *Salesroute and over-the-road drivers are excluded.*

For wage study purposes, truckdrivers are classified by type and rated capacity of truck, as follows:

Truckdriver, light truck
(straight truck, under 1 1/2 tons, usually 4 wheels)
Truckdriver, medium truck
(straight truck, 1 1/2 to 4 tons inclusive, usually 6 wheels)
Truckdriver, heavy truck
(straight truck, over 4 tons, usually 10 wheels)
Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

Performs *clerical and physical* tasks in connection with shipping goods of the establishment in which employed and receiving incoming shipments. In performing day-to-day, routine tasks, follows established guidelines. In handling unusual nonroutine problems, receives specific guidance from supervisor or other officials. May direct and coordinate the activities of other workers engaged in handling goods to be shipped or being received.

Shippers typically are responsible for most of the following: Verifying that orders are accurately filled by comparing items and quantities of goods gathered for shipment against documents; insuring that shipments are properly packaged, identified with shipping information, and loaded into transporting vehicles; preparing and keeping records of goods shipped, e.g., manifests, bills of lading.

Receivers typically are responsible for most of the following: Verifying the correctness of incoming shipments by comparing items and quantities unloaded against bills of lading, invoices, manifests, storage receipts, or other records; checking for damaged goods; insuring that goods are appropriately identified for routing to departments within the establishment; preparing and keeping records of goods received.

For wage study purposes, workers are classified as follows:

Shipper
Receiver
Shipper and receiver

WAREHOUSEMAN

As directed, performs a *variety* of *warehousing* duties which require an *understanding of the establishment's storage plan*. Work involves *most of the following*: Verifying materials (or merchandise) against receiving documents, noting and reporting discrepancies and obvious damages; routing materials to prescribed storage locations; storing, stacking, or palletizing materials in accordance with prescribed storage methods; rearranging and taking inventory of stored materials; examining stored materials and reporting deterioration and damage; removing material from storage and preparing it for shipment. May operate hand or power trucks in performing warehousing duties.

Exclude workers whose *primary* duties involve shipping and receiving work (see Shipper and receiver and Shipping packer), order filling (see Order filler), or operating power trucks (see Power-truck operator).

ORDER FILLER

Fills shipping or transfer orders for finished goods from stored merchandise in accordance with specifications on sales slips, customers' orders, or other instructions. May, in addition to filling orders and indicating items filled or omitted, keep records of outgoing orders, requisition additional stock or report short supplies to supervisor, and perform other related duties.

SHIPPING PACKER

Prepares finished products for shipment or storage by placing them in shipping containers, the specific operations performed being dependent upon the type, size, and number of units to be packed, the type of container employed, and method of shipment. Work requires the placing of items in shipping containers and *may involve one or more of the following*: Knowledge of various items of stock in order to verify content; selection of appropriate type and size of container; inserting enclosures in container; using excelsior or other material to prevent breakage or damage; closing and sealing container; and applying labels or entering identifying data on container. *Packers who also make wooden boxes or crates are excluded.*

MATERIAL HANDLING LABORER

A worker employed in a warehouse, manufacturing plant, store, or other establishment whose duties involve *one or more of the following*: Loading and unloading various materials and merchandise on or from freight cars, trucks, or other transporting devices; unpacking, shelving, or placing materials or merchandise in proper storage location; and transporting materials or merchandise by handtruck, car, or wheelbarrow. *Longshore workers, who load and unload ships, are excluded.*

POWER-TRUCK OPERATOR

Operates a manually controlled gasoline- or electric-powered truck or tractor to transport goods and materials of all kinds about a warehouse, manufacturing plant, or other establishment.

For wage study purposes, workers are classified by type of powertruck, as follows:

Forklift operator
Power-truck operator (other than forklift)

GUARD

Protects property from theft or damage, or persons from hazards or interference. Duties involve serving at a fixed post, making rounds on foot or by motor vehicle, or escorting persons or property. May be deputized to make arrests. May also help visitors and customers by answering questions and giving directions.

Guards employed by establishments which provide protective services on a contract basis are included in this occupation.

For wage study purposes, guards are classified as follows:

Guard I

Carries out instructions primarily oriented toward insuring that emergencies and security violations are readily discovered and reported to appropriate authority. Intervenes directly only in situations which require minimal action to safeguard property or persons. Duties require minimal training. Commonly, the guard is not required to demonstrate physical fitness. May be armed, but generally is not required to demonstrate proficiency in the use of firearms or special weapons.

Guard II

Enforces regulations designed to prevent breaches of security. Exercises judgment and uses discretion in dealing with emergencies and security violations encountered. Determines whether first response should be to intervene directly (asking for assistance when deemed necessary and time allows), to keep situation under surveillance, or to report situation so that it can be handled by appropriate authority. Duties require specialized training in methods and techniques of protecting security areas. Commonly, the guard is required to demonstrate continuing physical fitness and proficiency with firearms or other special weapons.

JANITOR, PORTER, OR CLEANER

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office, apartment house, or commercial or other establishment. Duties involve *a combination of the following*: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing metal fixtures or trimmings: providing supplies and minor maintenance services; and cleaning lavatories, showers, and restrooms. *Workers who specialize in window washing are excluded.*

Appendix C.
Job Conversion Table

Beginning in 1981, multilevel jobs are identified by numeric instead of alphabetic designations. A conversion table for the affected occupations follows:

Occupation	Numeric designation (currently used)	Alphabetic designation (previously used)
Secretary	I	E
	II	D
	III	C
	IV	B
	V	A
Stenographer	I	General
	II	Senior
Typist	I	B
	II	A
File clerk	I	C
	II	B
	III	A
Order clerk	I	B
	II	A
Accounting clerk	I	
	II	(not
	III	comparable)
	IV	
Key entry operator	I	B
	II	A
Computer systems analyst (business)	I	C
	II	B
	III	A
Computer programmer (business)	I	C
	II	B
	III	A
Computer operator	I	C
	II	B
	III	A
Drafter	I	
	II	(not
	III	comparable)
	IV	
	V	
Electronics technician	I	C
	II	B
	III	A
Guard	I	B
	II	A

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Area Wage Surveys

A list of the latest bulletins available is presented below. Bulletins may be purchased from any of the BLS regional offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Make checks payable to Superintendent of Documents. A directory of occupational wage surveys, covering the years 1974 through 1979, is available on request.

Area	Bulletin number and price*	
Albany-Schenectady-Troy, N.Y., Sept. 1981	3010-49	$2.50
Anaheim-Santa Ana-Garden Grove, Calif., Oct. 1981[1]	3010-57	$3.25
Atlanta, Ga., May 1981[1]	3010-24	$3.25
Baltimore, Md., Aug. 1981[1]	3010-39	$3.00
Billings, Mont., July 1981	3010-25	$2.25
Boston, Mass., Aug. 1981[1]	3010-48	$3.25
Buffalo, N.Y., Oct. 1981[1]	3010-61	$3.25
Chattanooga, Tenn.—Ga., Sept. 1981[1]	3010-42	$3.25
Chicago, Ill., May 1980	3010-19	$2.75
Cincinnati, Ohio—Ky.—Ind., July 1981	3010-30	$2.75
Cleveland, Ohio, Sept. 1981[1]	3010-44	$3.25
Columbus, Ohio, Oct. 1981[1]	3010-54	$3.25
Corpus Christi, Tex., July 1981	3010-22	$2.25
Dallas—Fort Worth, Tex., Dec. 1980[1]	3000-67	$3.25
Davenport—Rock Island—Moline, Iowa—Ill., Feb. 1981	3010- 7	$2.25
Dayton, Ohio, Dec. 1980[1]	3000-64	$2.25
Daytona Beach, Fla., Aug. 1981	3010-38	$2.25
Denver—Boulder, Colo., Dec. 1980[1]	3000-68	$3.25
Detroit, Mich., Apr. 1981	3010-12	$2.75
Fresno, Calif., June 1981	3010-27	$2.25
Gainesville, Fla., Sept. 1981	3010-45	$2.50
Gary—Hammond—East Chicago, Ind., Nov. 1981	3010-59	$2.50
Green Bay, Wis., July 1981[1]	3010-26	$2.75
Greensboro—Winston-Salem—High Point, N.C., Aug. 1981	3010-43	$2.75
Greenville—Spartanburg, S.C., June 1981	3010-23	$2.25
Hartford, Conn., Mar. 1981	3010-71	$2.50
Houston, Tex., May 1981	3010-14	$2.75
Huntsville, Ala., Feb. 1981	3010- 5	$2.25
Indianapolis, Ind., Oct. 1981[1]	3010-56	$4.25
Jackson, Miss., Jan. 1981	3010- 4	$1.75
Jacksonville, Fla., Dec. 1981	3010-63	$2.50
Kansas City, Mo.—Kans., Sept. 1981	3010-47	$3.00
Los Angeles—Long Beach, Calif., Oct. 1980	3000-63	$2.25
Louisville, Ky.—Ind., Nov. 1981	3010-60	$2.75
Memphis, Tenn.—Ark.—Miss., Nov. 1981	3010-55	$2.75
Miami, Fla., Oct. 1981[1]	3010-53	$3.25
Milwaukee, Wis., May 1981[1]	3010-16	$3.25
Minneapolis—St. Paul, Minn.—Wis., Jan. 1981[1]	3010- 1	$3.75
Nassau—Suffolk, N.Y., June 1981[1]	3010-31	$3.00
Newark, N.J., Jan. 1981	3010- 3	$2.25
New Orleans, La., Oct. 1981[1]	3010-46	$3.25
New York, N.Y.—N.J., May 1981[1]	3010-41	$3.25
Norfolk—Virginia Beach—Portsmouth, Va.—N.C., May 1981	3010-17	$2.25
Northeast Pennsylvania, Aug. 1981	3010-40	$2.25
Oklahoma City, Okla., Aug. 1981	3010-37	$2.25
Omaha, Nebr.—Iowa, Oct. 1981	3010-51	$2.50
Paterson—Clifton—Passaic, N.J., June 1981	3010-35	$2.25
Philadelphia, Pa.—N.J., Nov. 1981	3010-52	$3.00
Pittsburgh, Pa., Jan. 1981	3010- 2	$2.25
Portland, Maine, Dec. 1981[1]	3010-64	$2.75
Portland, Oreg.—Wash., June 1981	3010-29	$2.75
Poughkeepsie, N.Y., June 1981	3010-28	$2.25
Poughkeepsie—Kingston—Newburgh, N.Y., June 1981	3010-32	$2.25
Providence—Warwick—Pawtucket, R.I.—Mass., June 1981	3010-36	$2.50
Richmond, Va., June 1981	3010-18	$2.50
St. Louis, Mo.—Ill., Mar. 1981	3010- 8	$2.75
Sacramento, Calif., Dec. 1980[1]	3000-70	$2.25
Saginaw, Mich., Nov. 1981	3010-58	$2.50
Salt Lake City—Ogden, Utah, Nov. 1981[1]	3010-62	$3.00
San Antonio, Tex., May 1981	3010-15	$2.25
San Diego, Calif., Nov. 1980[1]	3000-71	$2.25
San Francisco—Oakland, Calif., Mar. 1981[1]	3010-13	$3.00
San Jose, Calif., Mar. 1981[1]	3010-10	$3.00
Seattle—Everett, Wash., Dec. 1980	3000-69	$1.75
South Bend, Ind., Aug. 1981	3010-33	$2.25
Toledo, Ohio—Mich., June 1981[1]	3010-20	$2.75
Trenton, N.J., Sept. 1981[1]	3010-50	$3.00
Washington, D.C.—Md.—Va., Mar. 1981[1]	3010- 6	$3.00
Wichita, Kans., Apr. 1981	3010-11	$2.25
Worcester, Mass., Apr. 1981	3010-34	$2.25
York, Pa., Feb. 1981[1]	3010- 9	$2.75

* Prices are determined by the Government Printing Office and are subject to change.

[1] Data on establishment practices and supplementary wage provisions are also presented.